



SEQUENCE LISTING

<110> VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOL

<120> Plant stress regulated genes

<130> FVB/Tab/V077

<140> US 10/647,625

<141> 203-08-25

<150> 01200659.9

<151> 2001-02-23

<160> 173

<170> PatentIn Ver. 2.1

<210> 1

<211> 233

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a1-1-14

<220>

<221> misc_feature

<222> (68)..(68)

<223> n can be any nucleotide

<400> 1
gtaacgaggt acagaagcat tgtattacaa tgttattcat cacatgatat taaagaggta 60
gggtttanttt tgttggacat tgaagctaaa atttctcttt aacacttaat gaaatattta 120
atttagattc aggctcacag acttgacgct gctatttttt tactcagtaa gatcatcttt 180
atctgtagtc tgtaccaata ataaaagccc aaacccttt aaccacattc atc 233

<210> 2

<211> 314

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a10-2-12

<220>

<221> misc_feature

<222> (141)..(188)

<223> n can be any nucleotide

<400> 2
aatggaagag gtcaagaaga atgtaaatgg cttttcagag accattgagg ttttgagtca 60
gcacgccaag aaatgtaacc aggatattag gatggcacga gcagtgatct tgcggaagat 120
tgtcagtc aaatgtaacc aggatattag cattggatg ttctttgatt gacagtagnt 180
gtcttgnnga ttttcttttt gtttatatac catgtatgtt tgtaaaaagt tgggtccaatt 240
atgttctgtt ggtatctgtg atttgagatt tttgaccctt gcagaaaatt aagttatagt 300
cctcattttg ttag 314

<210> 3
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-1

<220>
<223> homology with metallothionein, homeobox gene
induced

<400> 3
ggcagcggct gcgaggatg tgggatctac ccagacttgg agaagtccat acctttacca 60
tcgttgatgg tgttgctccc atgaagagct ttgaggaatt tggagagaaa gcagcagaag 120
gaggaaatgg ctgcaaatgc ggatcaaact gcacctgtga cccttgcaat tgtaagata 180
attctcttgt gattccacaa taatgtgtgt gttttctgta ataataagga taaaactaca 240
gctagccatg gaactgattg tcagttttta gttttgtttg ttctga 286

<210> 4
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-12

<220>

<221> misc_feature

<222> (58)..(195)

<223> n can be any nucleotide

<400> 4
gacatcagct gttggagctc aagactttcc tcctgtttca caatatgact ataaatantt 60
gcaacttcag ctgttgagc tcaacatttg caagtgatta ttggctttga agagaactta 120
atttattggt tgtgacttgg tggcaaatta tgtgttttca agtagtaatt tgccttgtgc 180
ctctatgttt tcaantagta atttgccttc gcgagttgat tacatgagaa atcagattct 240
cagtctttgt gtagtaatta tttgggctgg tgccatcagc caagtg 286

<210> 5
<211> 278
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-15

<220>

<221> misc_feature

<222> (64)..(186)

<223> n can be any nucleotide

<400> 5

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ctacaaaaga aagggttattt atacaatatg cattgtaaaa aatcaaccgt taatacaatg 60
ggcngcataa catataatat aagattttga taacctaata accaacaaca cttatttata 120
taatatgtgg aaaagatgca tccaactatc acagatatata catccaaagg ctatacttaa 180
tttctnctaa ataacaaaca cacacttaat ccgtcactcc tcgtgtgtac aagcaatag 240
ccccaattta gttgtcatcc tctaacattc aatattcc 278

```

<210> 6
 <211> 349
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a14-1-1 ; homology with a serine
 carboxypeptidase

<220>

<221> misc_feature

<222> (19)..(19)

<223> n can be any nucleotide

```

<400> 6
gcagaaagat tttgggggng gcaccatctg gtttctttca cagtagatgg tgaggagaaa 60
ggaattcaaa agagctatgg acctctgact ttctctcaaag tcccatgatg caggtcatat 120
ggtgccaatg gaccaaccaa aggcagcact cgaaatgctc cagagggtgga ctgctcaagg 180
caaattgtcc taagaagatt atcttgctca catgtgaagc atcaatttaa gaaccacact 240
taactgaaac agatttaaca tttttccagc tttaaaattc catcaaaaca tagaaaatca 300
tgtagataca tttcaccttt tcaggttacc ctgaaatctg tcaatgaaa 349

```

<210> 7
 <211> 367
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a14-1-3

```

<400> 7
gtggaggaaa ggttcagggg aggttgctcg agtcaatgcc gccgatgccg ggaaagttaa 60
cctgagaaat gaaactgccg gaattttgac ggttggcgac atgagggaacg ttaagtcacc 120
gttagagata acggagggtg acgacacgtg gtgggacgcg gacgccgtta caatcgagga 180
gcagtttgac ggttcaaata aaactagtca aattgaacga gtttactga ctcggtgaat 240
gaatgatcta aaaagggtaa aatcgtaaat gacaaaggcg aaatgtgaag gaacgaacac 300
tcgtccgtgt ttgtctgtaa atataattat tttcaataat tattggaaat gataatttaa 360
tatttg 367

```

<210> 8
 <211> 389
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a14-1-4

```

<400> 8
ggaagaagaa agagaaaggg ctgagaaaga gaaagagaaa gagaaagaag cagctgctga 60
agaagccaag attactgata aagtgaacga aaatgagaag tcggagagta atattgtcaa 120
ggaaaatcca gagggtaatg gtgttaagga aaatggtaag tcggaaaata atgttgtaa 180
ggaaaatggt gatgttagta aaggttgatc atgaaatgat tgattaatta ggagttccac 240

```

```

ttaaactag gatccaataa ttttgaatag ttttgctgtg ttcacattgt tgactttgtt 300
attcaaacta ttcggatgga agtagtggat gtcgcaaatt acatttagta ttactacctt 360
cttgtgaaag taacattttc ataatttag 389

```

```

<210> 9
<211> 317
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid a18-1-5 ; homology with EREBP-1

```

```

<220>

```

```

<221> misc_feature

```

```

<222> (9)..(309)

```

```

<223> n can be any nucleotide

```

```

<400> 9
ggacatacna nacggcggag gatgcggcgt tggcgtatga caaggcggcg tatcgaattc 60
ggggatcgcg tgcagtgttg aatttcccgt tgaggggttaa ttcgggtgaa ccggaaccgg 120
ttcgggttgg ttcgaanagg tcgtcaattt cgccggagag ttcttcctcg tcgtcgtcgg 180
aaaatatttc gacaaagagg acgaagaagg ttgccnnct atacagctga gggttaattt 240
gggaatttca aaattgttca attccatgaa caggttgagt tcaatatttt atttcatttc 300
ctctcctcnt agaaatt 317

```

```

<210> 10
<211> 276
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid a18-1-8

```

```

<220>

```

```

<221> misc_feature

```

```

<222> (166)..(264)

```

```

<223> n can be any nucleotide

```

```

<400> 10
ctgagctagg agagcacaca gggccttagt tcaagtggaa aagggtggaag gacttgtgat 60
taagtcacgg gtttgagcta cgtgccatgc gaattaagct tggattttaa gtggagtagg 120
gtagaggggt ggaccatta tccgagtttc gaatgctgca gttgtnccta gacagatttc 180
tcggtcctca aaataaaata aaataaatga gcttggagaa taaactccat ttttgtgaca 240
gtacaatctt ctgcataaac atantcaaa aagtgt 276

```

```

<210> 11
<211> 293
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid a18-3-2

```

```

<220>

```

<221> misc_feature

<222> (27)..(277)

<223> n can be any nucleotide

<400> 11

```
gatgtacctg aagccactgc tatggantat gttggaggta ttttatcaac aattggcnaa 60
anatgtatgc tcgattttgt attttgattc ntaaaantga taannnnngag ntgaantcga 120
ctgtattttg caagnntagt tatatcttta atcttgtttc ataaaatgca tgtgtgattg 180
ttatttttagt cgatagaaaa aagaaagacc cngtatagtt tgttgatctg tgctgcagtt 240
tttgacagcc aatgctgttt tttagggttac aatatgnagt tgattttcta ttg 293
```

<210> 12

<211> 290

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a18-3-3 ; homology with EIF-5A (initiation factor 5A2)

<400> 12

```
ttaaagggtg atttgaggaa ggaaaggatc ttgtgttgtc tgtgatgtct gcaatgggtg 60
aagagcagat tgccgctgtt aaggacattg gtaccaagaa ctagtcgcgc attctgcagc 120
ataaataatt tgcttttagcc aagacatttt atatcttaat cgtgggtactt tgatatccgt 180
tgattatgaa ctgcacttat atcctattgg catggcttga atagttgaac tttatgggtt 240
gtctggttaag acagaactgg atttgatagc agaagtgatt tatatgaatg 290
```

<210> 13

<211> 260

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a18-4-6

<220>

<221> misc_feature

<222> (36)..(172)

<223> n can be any nucleotide

<400> 13

```
tgatgatggc tgggttcact ccatccccaa ttagtngnaa cgtntatgan tngatccaga 60
attttatcaa gcnatatagt gnaaggnaca aagccaaggg gggggcaggt gcaatncatt 120
ttgggtgggg aganaagagn ntgattgttg cttnagcttg ggaatagtta cnaagtatgg 180
ttttctcata taaaccacaca atgtgcatcg aatcaacttg tattgacatc tgactttgtg 240
ataatattca gtgtttatga 260
```

<210> 14

<211> 269

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-1

<220>

<221> misc_feature

<222> (222)..(267)

<223> n can be any nucleotide

<400> 14
cgtgatagtt ttttcgcgac ttgattagaa gcaaatacagc aatagataag ggacttgat 60
aaaagatagg tagcaaaata tactgtcctc ttcgtcctct gccttttttt tctttttaac 120
tttgatttta cagccatctc tggtaaaagt tctgatttct ctgggctcag ttttgtaaat 180
caatataaat caatataaaa acagcttgct tttctatgtt tnggttgatt tagatatgca 240
aatncttggt agagctgttt ctcttttnc 269

<210> 15

<211> 268

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-3

<400> 15
gagtaaaatt catatttgat aattatacaa ggaaattaca ttcttaaaga agtgattttg 60
atttgagttc caagatttgg tgaagttact aaacagattt tgagttccta acttgtgcgc 120
aatgctggat aactcagcca ttttaattatt ctagtactcc attaatttat tgtttcttaa 180
cctatgtgta tgtttttcct gccgcagcaa ctttagttga tttcagagta ttcgttttga 240
tttgctcgaa aattgaaaag gacttgcc 268

<210> 16

<211> 269

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-4

<220>

<221> misc_feature

<222> (72)..(177)

<223> n can be any nucleotide

<400> 16
caaggcagag agacttgaat aaaggggac atgaggattg aaccttacac ggtaagatgt 60
aaaataacag tncatcacg gaattactat tcaatcctca aaatgataag ttgtncaaat 120
aaatggggat tataagatnc cttttatctt tgcggaagg ggtgattttg tatnctnggg 180
atgtgtaact gttgaataaa attgtgtgaa atccattgtt cataatgtac gaaatttcaa 240
aactattata tatgcgggac ttttaattta 269

<210> 17

<211> 265

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-9

<220>

<221> misc_feature

<222> (91)..(22)

<223> n can be any nucleotide

<400> 17

```
aataaactat gaagtcgaga tatgaatcaa actgaaacct caagtaaaaa tggactcaaa 60
actcagacgc attactaaat ggcgaagtac ntngtgtgcg caaacaatac aaacaaaacc 120
tattgttaca cccattcgac aaatatttca accaaaaaac agaacgtgac cttaaaagtg 180
agacaacttc tgtaaacgct cacacgcctc aatgatagan taataaagcc aaccaattcc 240
cagttcccat aacccaacc caacc 265
```

<210> 18

<211> 359

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a20-1-3

<400> 18

```
ggaataaaga ttaacataaa tgtgatcccc gaaaggtaaa tacaaggatg ccaatctcta 60
ctaakatgaa atctctaatt tctattttct atgtccaacc tcgtaaagca tgaagtccaa 120
ataaggcaag ggaacattt cattcataga aacatgcaga aaagaattta tccagagtaa 180
taaaaactat taacctaaaa cgtcataaca aaatgagcct ggaataatac cctacagcag 240
taaaacttaa cgtccaaaaa cacaacacat aaaactcaac cacatcttgt tctgctggtg 300
gagtaaagta aaaacaaaaa aactaaaagg gggggttgag ttaaggggct tcatcatta 359
```

<210> 19

<211> 399

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a3-2-2 ; homology with L12 (60S) ribosomal protein

<220>

<221> misc_feature

<222> (242)..(242)

<223> n can be any nucleotide

<400> 19

```
aagaagacca aaaacattaa gcataacggt aacatctcgc tcgatgacgt catcgagatc 60
gctaagggtga tgaagccaag atcgatggcg aaggatttga gtggaacagt gaaggagatt 120
ttgggcacgt gtgtatcagt tggttgtacg gtagatggga aggatcctaa ggatttgcag 180
caagagattg atgatggtga tgtcgagatt cctctcgatt gaatgcgaat tatcaactga 240
tngtaatat atgttaattt tatgttattt tgttttgagg atgtcatctt gaggatcatt 300
ttgatataac tatgacattc tggaatttta tatttggaat ttagatttgg atttgctttt 360
tctcgatgaa gtgcttttagc attgctttat gcgttttgc 399
```

<210> 20

<211> 287

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a8-1-1

<400> 20

```
gtgcaatttg cagtcactgg cgcagatcgc agagaacttg gctaaaagaa agagtaaatt 60
aacaactact cgtgactaat tctgtgtttt ttttaatttt gtacattttc tctcttttaa 120
tttaggttgg ttgttgtttt gagctgttag ttttgaatga tggatagagt atttgttatt 180
attgtagatt atgaagaccc agaactgaaa cttcatagat tggtagattt cgatgactgt 240
aaggttgggt cttggaattg ttacaacgtg actgtttgat aattctg 287
```

<210> 21

<211> 284

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a8-1-2 ; homology with
(chlorophyl)-geranyl-geranyl reductase

<400> 21

```
cagatgagta tgtgcagaag atgacatttg acagctattt gtacaagaaa gtggcaccag 60
gaaaccccat tgaagacttg aagcttgctg tgaataccat tggaagtttg gtgagagcta 120
atgcactaag aagggaaatg gacaaactca gagtataaga ggattaatag cattaatatt 180
tttcttgtaa ctgaagagtt tatttctcaa attactctgt aaacaccttt catccttcct 240
tcaataggat ttatgtaact tcatgatttg agttacattt cttc 284
```

<210> 22

<211> 287

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a8-1-4 ; homology with an early wound
inducive gene

<400> 22

```
gaacatgctg attgcagcag ttgaagaacg atatagagat gcagctctgt ggagggacaa 60
gcttactcaa ctgcggtcca aacgaaactg gatataacag gtgtgcttta gagttgtctg 120
agcaaaggac tactgtgtat atagggagtt attcatcgga gccaatgtgg tcagcatcgt 180
caaagatcaa ttgtagctct ccgttaatat gtaaaataac ttgtgaatat ctgtatagat 240
tgtaatgcta atgtaaaaca aacaggtaaa cttatggttc ttggaca 287
```

<210> 23

<211> 344

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-1-2 ; homology with epoxide hydrolase
[I]

<400> 23

```
cgttaaaagt ggaatggtga aagaatatgt gcctaactctg gaaaccatat tcttaccaga 60
aggcagtcac tttgtacaag agcagtttcc tgaacaggtc aatcagttga ttatcacctt 120
cctcaaaaag ctcataataa aaactgcttg ccagcgacgt tgaataaaagg gcaacccagt 180
gcacgaaact cccgttatgc acaagggttg ggaggagccg gcatttggtt cttatttttc 240
agagttgaat gttgatctca gttttatcaa acaataccat atcacatttt cggcatattt 300
ctacttgatg gttgatcaat aaaagggtac atgggtttac cgcc 344
```

<210> 24

<211> 255
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-3-4 ; homology with ISI10a glucosyl
transferase [I]

<400> 24
aagagagtaa tgggtgagtga agaagcagag ggattcagaa acagagctaa agcgtataag 60
gagatggcaa gaaaagctat tgaaggagga ggatcatctt acactggatt gactactttg 120
ttggaagata ttagtacata tagttttact ggtcattaag ttatgattaa aaaaaaagta 180
gttcttagta tgatttctat actgtttttg tgctttttct gtatgtgact gtgctaattt 240
aaacatttcc ttttg 255

<210> 25
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-4-1

<220>

<221> misc_feature

<222> (26)..(171)

<223> n can be any nucleotide

<400> 25
cattaacaa gaattagcgg tggganttgg gcaagaaaat tagaattgga tctaccgtgt 60
gtgcttttta gcctattgaa aatcggattg cattttgctc taggcttatg atcttgtttt 120
agcttgctcc tattggtggt tattttttan tatgttttat gtattaaagg naggattcag 180
agaataaata catattgttt atttctagtt ttgtca 216

<210> 26
<211> 212
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-5-9

<220>

<221> misc_feature

<222> (62)..(62)

<223> n can be any nucleotide

<400> 26
ataagaagaa aattacctct acaatcttta cttagaattg tggatgtaga gcaaggatgc 60
anagaccga gctaatatga atttataaat atggattggt gatctataat aagatataag 120
tttcgatact ttctgatatt ttgctataga atttggagat gaatggatc tccagaactc 180
tcattcattt gtaaaaagtt tttgattcct gg 212

<210> 27
<211> 199

<212> DNA
 <213> Nicotiana tabacum

 <220>
 <223> plasmid a9-6-11

 <220>
 <221> misc_feature
 <222> (73)..(73)
 <223> n can be any nucleotide

 <220>
 <221> misc_feature
 <222> (144)..(144)
 <223> n can be any nucleotide

 <400> 27
 taagcagtga cggagatacc ctttacagag agtgtgtggg tgtcatctaa ctagctgctt 60
 cataaaacat ctnccttgtg tatatatcta tatttaaatt attttatatg tatatataga 120
 taatagctag ttatcataat atantttaaa tattgatttg agacaagaaa taaaatctca 180
 aaaccaacat attctttcc 199

 <210> 28
 <211> 178
 <212> DNA
 <213> Nicotiana tabacum

 <220>
 <223> plasmid a9-7-1

 <220>
 <221> misc_feature
 <222> (26)..(152)
 <223> n can be any nucleotide

 <400> 28
 gaaatgagag attgaatttc aatgantgca tttcaggaag agtactctgt gatgttcaaa 60
 gtttgcagtg aattatcgta gtgtattnct agtggtgggt ggtncattac ctttcccaa 120
 taagacattt attgtttgac atnccaattg anaaatgtca ttttgtatcg ttctcttg 178

 <210> 29
 <211> 196
 <212> DNA
 <213> Nicotiana tabacum

 <220>
 <223> plasmid a9-7-10 ; homology with LOX1
 (lipoxygenase) [I]

 <220>
 <221> misc_feature

<222> (36)..(36)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (188)..(188)

<223> n can be any nucleotide

<400> 29

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tagaacttta attcaatata aaagtattaa atccangtgt tgttattggt tctttatatt 60
cctaataata atagaaaata aaatttttta tttttatttc aagggagttc cagctacagc 120
taaaggangt aatgctgtag gctcttctgt tctgtaagta attcatttgt atcaacaagt 180
gcccagtttt aaattg 196
```

<210> 30

<211> 197

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-7-11

<400> 30

```
gaagacaaga aaaactatag gacattacgt aaatattgaa tatagataga cttatgcgat 60
tgtgatgtaa gaaaccttta gaagacattg tcaaactcca gcttctctaa cttgtaagaa 120
atgatcaaga gtgaacctgg cacagtcgat ccgcaatttg ttgctgtttt gtcttcaatt 180
taacactacg ctccac 197
```

<210> 31

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c1-1-3

<400> 31

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aatcattaag gtttaaaaga aaagataaca cgtaaaaacg catccttttt acctttatcg 60
tcaaatttca aatgatgaat tacggagaaa ccgaatttgc aaactccata actctgctgc 120
tgttattctc gtctcagaga gggagagacg cacaacgaac atcaaaatag cgggagaagc 180
tcggaaaaat atgttttcat atatttatat aatttgaagt gaatttggtg tgttgaaaat 240
ttaactccct ctgtggattg ttattgaaga tataattttt tttcaatggt cgttttctgt 300
ttcgattatt gaaagatagc aacagaaaga ttgtggctta 340
```

<210> 32

<211> 336

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c1-1-5

<400> 32

```
tgtatgatcg aggtgtaagc cctcttcctg ctgccaatgc agtagttggt ctgaggagtt 60
gacaattgat gacaggtggt gacagttgat gattttcttt cctactagat taaagtctac 120
cttcactcat gtacatgata agcatttgta cagaacagtt atggttctgt ttataaaaaa 180
agattaggtg gtcttgactt gcatttctgt gtattttgaa agtgcagact cgctctttta 240
```

cttctatgcg tggtggcttc ttgggccttc tccttcttgc tcgtgattgc ttcttataaa 300
 atttaagtaa aaatacatag cctggcattg ttcttg 336

<210> 33
 <211> 400
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c1-2-2

<220>
 <221> misc_feature
 <222> (9)..(86)
 <223> n can be any nucleotide

<400> 33
 agctacgann tgnctcnagg gcnnngcaant gcgncgngng antnatngca ncnnggannt 60
 antgttnnan ctggaacnga ntccangcaa cctgtttctg tggattcttc cacgtacctt 120
 tggcttggtg atacatgtag atcgtattgc cgtcaacact taataacttg tacacgaaac 180
 agcttctgtt ttgaagtctt tcccagtcac tggctcgatag cattaatcgg ctgagatgga 240
 gcttagatcc caagagtagc tgccttttag acggtttgac ctaatcgtgt gttttgactc 300
 tattatgata ccttcattctg ctgcactaag aaattgacaa gtgcggtgaa tttcttacat 360
 gaggaatttt caactggaat gccttagtat tattgtgttt 400

<210> 34
 <211> 330
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c1-3-12

<400> 34
 ggaatggatg atctgaaagc atcttaagtc taaaggaagt ttgcaactca gttgagattc 60
 atccacactg agagaaactt ctgaaacaac catacttctg ctttatcctg ttgtaccatg 120
 aatagctgta gcagcagaca atgagctttt tttaaagaca tttggtttgt aacttaaaac 180
 ggaaggaact ggattgaggc aataagtgat tctggagaat agtggtttga ctcaaattatt 240
 taatttcatt ttccagatca tgatcacctc ttgtgatttt acatgtttta ggacttcaag 300
 tgaatgtatt gttcagtaag tgttattacc 330

<210> 35
 <211> 334
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c10-3-1

<400> 35
 gagtaggatg ctggtgggat ggtcttctgt tttacagaat cctttacaga tctggtattc 60
 aagaagacca ttaggatggt taggatgtct tgagatgaag catgaattat cttacgccgg 120
 aaattttaag aactttttgc cttttttcat ttacagctca acagtttata tcgattagta 180
 gatttagagc ttctctattc catattctaa tccttccaac acattatcct agtctgtcta 240
 gtattccttt tactgcattg ggcaaacttt gagctataat tgtactggtc ccaagcttca 300
 aaagaatgta tgaaatgagc cattcactcg ttga 334

<210> 36
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-5

<220>

<221> misc_feature

<222> (2)..(111)

<223> n can be any nucleotide

<400> 36
gnanagagng naantttggg ngganagntg ctgttgcnaa nccctanttt cccccngcca 60
antgnggaaa ggaattaata aaanaagttt ggattatnga acgtnggaag naacaaaatt 120
agtaattcctt attactagtt attttcattt gttaacacca ataataacta atttgcttgt 180
ttggcttcat atctggatgc tcgcttgtgt agcttattat tgcattgtt tgtatgaata 240
aaccaaggcg acgggcaact cttgactcct gtaaaaagta gacggtttct cagtgtagaa 300
gtcggagtag taccattcct gaaatcttgt cttt 334

<210> 37
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-2-1

<400> 37
aatatgaagg ggggtaaatc cgtaaataata attaactaat caaatatcga ttacaaaatt 60
gtaagataat tgattgaaga atatccttct tttgtacata attattttca agattatata 120
aaatgaaaat tgatgtttga tcgagatgac tttccattat ttaagttgaa aatggagagt 180
ggttgtttca atataagtat tttaatctga ttttct 216

<210> 38
<211> 179
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-1

<400> 38
aagtgttaag taaaggtttc cattgcttat ccccggtata tttaccttat cattttctgg 60
ttggacatta ccgtgatagc tagaagataa tcatgttgac tgagaaatct tattttctatg 120
actgtaaaat ttgttaaaaa tgagaacgag ataagatttc ctattccgaa gcacatact 179

<210> 39
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-3 ; homology with caffeoyl-CoA
O-methyltransferase 3' [I]

<400> 39

```

ggaggataaa atatcatctt gtaaataaac tttactcaag ccgaatgaga caaatTTTTaa 60
gtatttggtt caatttcaga agtacaatat ttgaaatata aatataataga aatattaata 120
gcgataatag tcatgagata caaaatattt attcacaat caaaagaaaa acaaaggtag 180
tt                                     182

```

```

<210> 40
<211> 441
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c13-1-6

```

```

<220>

```

```

<221> misc_feature

```

```

<222> (242)..(242)

```

```

<223> n can be any nucleotide

```

```

<400> 40
catcggatgg aggacaaggc aagtgaaggg gacagcaaga aacctcagag cagctcgaat 60
agacagactc ccacttcaaa tccatttcca gcttcttcgc aatctcctcc aattgccaaa 120
tccacaagta ataaaagcaa aagcccgcgt cctccatctt tgccattgat atcagattca 180
acgtcgtcat cgtcgcaatc tcctcctata gttgccaaat ccacaagtaa taaagttaca 240
anaccgcaac ctccatcttc gttgatatca gaatcaaatt catcttagaa ttcttgatgc 300
agaatggccg tgctttatctt gattcaccag tgattctttt gctcgatgct acaaaatact 360
agtaattaac taccactcga gaagccttgc aaattttgta tacacgaatg cattcaatga 420
actgggatcg accttctttg t                                     441

```

```

<210> 41
<211> 340
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c13-2-1 ; homology with L19 ribosomal
      protein

```

```

<400> 41
agggaccagg agagaggcca gttcaacctg cagctccggc tggtgccgca ccagcccaac 60
cagctcaggg atctaagaag tcaaagaagt gagcatgatg aattgtaagg aggggtgccaa 120
gcctgctttt tggtcttgct agtataacag tttagcatgt ttgatctggt cccttattgg 180
tcttttaact ttggaagaca acgttacctg tacgaatttg gaagctgggt taaagttttg 240
ataccttggt tctcagtgat accttttact catgttttga ttatatattc aacttagttg 300
ttttgcgtcg catggaatgt agtgagttag cagctatttg                                     340

```

```

<210> 42
<211> 184
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c13-3-13 ; homology with 23S 4.5S rRNA
      genes (chl)

```

```

<400> 42
ccagagacga ggaagggcgt agtaatcgac gaaatgcttc ggggagttga aaataagcat 60
agatccggag attcccgaat agggcaacct ttcgaactgc tgctgaatcc atggacaagt 120
aatgagacaa ccattcttgct gtatattata aagcataagt aataatccat tcttatagtg 180

```

agtt

184

<210> 43
<211> 186
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-6

<400> 43
gaagacaata caacattaat cacctttgcc tctgcgactt agagacaatt gaactactgc 60
atcttgcttg attttctatg ttgtatcttg agtataataa cgtcgtgagt gagtttatat 120
ttgcaaagga tatccagtc aatccatgct tgggttaaat gtatatttgc caaaaacttt 180
ctattc 186

<210> 44
<211> 549
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-1-60 ; homology with a glycolate
oxidase

<400> 44
ccttcaacaa ttcattggctc ttgaagaggt tgtgaaagct gcacaaggcc ggatccctgt 60
attcttggat ggaggtgtcc gccgtggaac tgatgtcttc aaagcttttg cacttggagc 120
ttcaggcatt tttattggaa ggccagtagt tttctcattg gctgctgaag gagaagctgg 180
aatcaaaaaa gtgttgcaaa tgttgcgcga tgagtttgag ctaactatgg cattgagcgg 240
ttgccgctca ctgaacgaga taacccgcaa ccatattgtc actgaatggg atgctccacg 300
tgctgctctt ccagcccaa gggttgtaaa atgtacctca agtgtcaa atgtttgatca 360
aagcaaagta ttgcttact gtttcagaag cttatatttt ggttttgaat acttgtttct 420
gtttaatgag tttacgaata tgttaagctt ttctcagtaa tggaaaactg ataaattctg 480
ataaatggcc agatatgcct ccatttgtac atcctctatt tctatatatc atcatattgt 540
gaacttttc 549

<210> 45
<211> 49
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-10

<400> 45
attgctatac ttttccaagt ttgataatat gaaaagacat ttctgtttg 49

<210> 46
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-15 ; homology with L35 (60S)
ribosomal protein

<400> 46
ggggaaaatc aaagactgag cttttggctc agttaaagga tctgaaagca caacttgctc 60
tcctccgtgt tgctaaggct actggcggtg ccctaacaaa ctctccaaaa ttaagggtgt 120

gaggttgtca	atagcacaag	tattgacagt	gatatcacag	aagcagaaga	cagcattgag	180
aaaagcttat	aagaacaaga	agtacttgcc	tcttgacctc	cgtcccaaga	agactagggc	240
cattcgtaaa	cgtcttacca	aacatcaggc	atctttgaag	actgaaaggg	agaagaagaa	300
agagatgtac	tttccaatta	gaaagtatgc	cattaagggtt	tgaattgatc	caacttagat	360
agtttgtgat	gtagagcaa	agctgaggat	cattatTTTT	gccattttgc	aatgttatat	420
tttgtattac	tactattatt	gcattatgaa	gttggagttt	tggtattttg	tttgccttat	480
gcgtgcaact	tttatgcatg	atcctgtcta	cacttctttt	tctacacttt	tgatcgagtg	540
tcgtgattat	tgt					553

<210> 47
 <211> 311
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c14-3-4 ; homology with L25 (60S)
 ribosomal protein

<220>
 <221> misc_feature
 <222> (49)..(49)
 <223> n can be any nucleotide
 <220>
 <221> misc_feature
 <222> (159)..(159)
 <223> n can be any nucleotide

<400> 47	
taaaaggaag	attaaggatg ccgtaagaa gatgtatgac atccagacna agaaagtcaa 60
taccttgatt	aggcctgatg ggactaagaa agcatatgtg aggttgactc ctgactacga 120
tgcattggac	gttgccaaca aaattggaat catctaaant agtagttacc tgtttagaat 180
tttacgagaa	tttaaaatct tggattgagt ttttagatac acttgaatgg aagtgccttc 240
tatttttcat	tttgaatttt gtgttttggg gacatgtttt gttccgtata agagaaatca 300
acttttatgc	t
	311

<210> 48
 <211> 272
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c14-5-1 ; rice genomic homology

<400> 48	
actgggatag	tcaaattatt gatcatgaag atgggccact cgaaagggag aagcttctgt 60
ttgcagtga	atcatattgg acagcgccag ctgctcaagg atcttaaact acttaatccc 120
actgttttta	atctttctta cttcaaagtc taatcatatt gctaatactc tcttttattc 180
tttcacatgt	taagttctag tattacttgc aaattgtaaa ctctaggatt ttaatgattc 240
ttcagcaact	acactgaagt aatgagttct gt
	272

<210> 49
 <211> 270
 <212> DNA
 <213> Nicotiana tabacum

<220>
<223> plasmid c14-6-11 ; Arabidopsis genomic homology

<400> 49
ggaagattat gctggcgatc gccgatggac ttggatcatc gccgattcaa atggttcttg 60
atgatatgta ccagaatatg atcaaacaag ctgccgatct cgaagcttct aagcgtcctg 120
cctaattaat tataactggt ttccagttct ctagcaaaat aagtcctttt ttattgttt 180
caattttcag tcatgtcttg tttccatgct gtgttctcaa ttctgtaatt ttacatactt 240
atatacaaat gaaatgtagg acaactttat 270

<210> 50
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-7-4

<220>
<221> misc_feature
<222> (18)..(19)
<223> n can be any nucleotide

<400> 50
tcaccaaatt ggcttgnna cttataatta ttgtagcat ataaaagaat aactattgtc 60
atattacatt tttccctaatt gttcaatgcc tttttagttt tcaacaaatt caatgttttt 120
tggttcactt gtttgtgaga tgattgcaaa atcatcaatg taatgcagtc tatatttgaa 180
cgaaattcat tga 193

<210> 51
<211> 203
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-2

<400> 51
aagaaatcct gaataacatt tcatttggga ggaggatta tatagttaat ggatttgggg 60
tttttttggc agtaaaattg tgttcaacat ttaatagaac tctgctgttg aaggggtttg 120
tttttatatg attagtact gtatttgtat tcaacagaca atattaattg aaatcaaatt 180
tctgcgtaga ccaacttctc ttt 203

<210> 52
<211> 492
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-4 ; homology with CBP20 (pathogen
and wound-inducible antifungal protein) [I]

<220>
<221> misc_feature
<222> (402)..(461)

<223> n can be any nucleotide

```
<400> 52
ggacctcgtg gccgaaactc ttgtggcaaa tgcttaaggg tgacaaatac aggcacagga 60
gctcagacca cagtgagaat cgtggatcaa tgcagcaatg gcggactaga cttggacggt 120
aacgttttcc ggcagctcga cacagacgga agaggggaatc aacgtggcca ctttattgtg 180
aactacgagt ttgttaattg tgggtgacaat atgaatgttc tggatatccc agttgacaag 240
gaataagaag ctatatatgg ccatgttttag tctttgacgg cccaaataaa agtaaaaaga 300
acgatatgta aaaggaaaaa gaaaataaaag ttgctttgat ggggttaggc aattccaata 360
tctattcaag aatgtctttc gttttgggaa gaaagagtga antgtgtatt atctttgtga 420
ttttgtatgc naatattgtg atttttaaac aaanaatcnc ntgggacagt atttgttggg 480
ctccttttga ac 492
```

<210> 53
<211> 201
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-11-2

```
<400> 53
ggatcatgag gtctatcgag tgaaggcaca tgcatggcg agcaaaaaaa agcttttgcc 60
catgtctaga acacaatgcg gatacatttg atggcccatc tgaaaggaac tatactgcat 120
ccaagctggt aatggccata atattttcca atatcatgac atttcttcac tgttattgga 180
taaacaagct tgagatctac t 201
```

<210> 54
<211> 199
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-11-4 ; Arabidopsis genomic homology

```
<400> 54
agttgtacac caaacttatc cataagtttg aaaccatttt atttccagtt tacatgtact 60
aaattatcgg tagatttgct tatatgtatt gtacagtagt tctaattggaa aggttgatgt 120
caatatctcc agagaggaca gaatgacgaa caaactgtag gtgcgagaat attgcttcta 180
aaacataaag tttcccggt 199
```

<210> 55
<211> 431
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-2-8 ; Arabidopsis genomic homology

```
<400> 55
gtcgcacaaa ggcttccgtg gatacaatac catgaagtac ccaatgttgg acatttgctt 60
attcatgata gagccgtgaa ggaggttatc tggaagacat tcttggccgg agagaaagag 120
cagatagtgt attcttaaac gggaagaagg agatttagag gttcctttgt aagaagacac 180
attctgtgtc ttttactggg atatcctatt gcatacatat taatcatata taaagttcgt 240
gagctagtag ctcaagtttt ggaacttcgg tggataatgg tttgcccctc taccctaact 300
gagaaatcct ggggagacgc aagtttcgaa actcgaatga taatggattt gaccttctac 360
ccttctttaa gacggttttg tggacttga atgtgcattt cggtttataa cgttttaggt 420
gtggccttgt g 431
```

<210> 56
<211> 446
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-3-4 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (33)..(33)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (61)..(61)

<223> n can be any nucleotide

<400> 56
aagaggaaca agtcatattg atcgctagat ttngcattta ccgtgtggat aaaatcctgt 60
nggagtataa ttctacttgg gacgatgtac tgaatttcag gctctacttt gcaagtagtc 120
ttaatatccc tcatagaaca ttgcctcgaa tcttctactga tgtgtttaat gaatttgctc 180
agatgagtc gagagtttagc gtaaagtcgc agcctatctt aaatatcggt ccagtcttgg 240
gtgctgggag gtctttatcg accttggatg atatattcac gtgtgaattc atcgctagga 300
aatgttagat ctcatTTTaaa ttaggggaatt atatattaaa tgttgagaaa aagagagttt 360
tgaacttgaa caaattctta taatgttatt gccaacccaa ttgttgcaaa ttacacttag 420
ctttacagga aatgaatata tgaagt 446

<210> 57
<211> 247
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c15-6-2

<400> 57
gaaccaagta aaaggcctga aatggaaagg aaaacaagca atcacaacta gacaacttca 60
acatagaagt gctttactac agtatttaag gacaaaatca ccaaaagcta atgaaaaaac 120
tggaggtgtt tgagcttcaa cactactcta ttggaaactg ttgtatgccg atactatgat 180
tgtgttttgg ataatatTTT tgtggtgcaa gttatgatgt aatatgatgt aaactattaa 240
agcgtgt 247

<210> 58
<211> 325
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c15-6-3

<400> 58
accgatcaag tacctaatta gagttccaaa tgctgcttag gctttggtcc aacaagggtct 60
tgtttgtcca ggcatttaac tcctttttgt ggatatcgat tctttatccg cctgtgagtg 120
gatgcttctg tttttgccat cttctggaaa gtttagttga ctgtaaaaac agctaaactg 180
taaactaaat tagcagagga aatctgcccgc cagatatttc aacatgcaag gatataatac 240

ttgtcgagaa taaaattttc agctttctatg gccttttctg tgatactttc aggaaaacat 300
tctatcagaa aatacatagc ttctg 325

<210> 59
<211> 235
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-7-1

<400> 59
gttgatgatg tgaagctctt gagtgtcagg aaccctcgtc gattcctctg agtcatgtat 60
ttttatgtaa aacgatgaat ttctgagtta tagtatgagt aaatttggtt gtaatgaagc 120
aaaaagaatg tggggagttc tgtttctctt agcttggtta ctagtagtgt ttccatatga 180
gtatgtatta tactaatgtc taatgaaagg caaagaagta tatatatattt gattg 235

<210> 60
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-8-5

<220>

<221> misc_feature

<222> (217)..(306)

<223> n can be any nucleotide

<400> 60
taatgagcgt gacggaccaa atttagtata tagatagtagc atatcttttcg cattctagta 60
caatttatac ccatacaaga gtatacatctt atgttactcc atacaaatga aagttaaaaa 120
agttattgaa tgtggaattc ataatacatg ggacaagcga tgtgaattct ctatgttttg 180
atgaacgact tgtatgatat gcttccttag aatacanaaa tttaaataat ttattgcnaa 240
aaaaaaaaa cntgactcan aggaatcnac gaggggttcct gacnctcaag agcttcacnt 300
cntcanc 307

<210> 61
<211> 342
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-3-1

<220>

<221> misc_feature

<222> (35)..(243)

<223> n can be any nucleotide

<400> 61
aagaatacaa gtactgcatg cacaagcatt ccctngggca gagcttggat gatattaaag 60
gttccttcga gtggtaaatt ggcaaaatct gctagcgtgg cctgtgtacn cctgcatctt 120
ttcccattaa caacttcctg ttgtatgtat tgtgtcnatc gtgtggatgc tcattgattt 180

```

gtactaatct gtaacgaagt gcaactttca gagattaagg ttttgttttc catttcngtc 240
ccntgggggtg ttccggaaca actatgggtg cttgtaaatt cctctgatct tgacagtggg 300
ggcaatattc ttacaaattt atttcaattt caaccggtta ta 342

```

```

<210> 62
<211> 287
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c17-3-5

```

```

<220>

```

```

<221> misc_feature
<222> (52)..(244)

```

```

<223> n can be any nucleotide

```

```

<400> 62
ataatgacgt gtcataaaaa atgtgatgtg gatgacgacg tgtcatccac antgtgcatt 60
tgaagaacac agagggggtt aaagtagtgt gtttttaaca actacgagtg ncttgataaa 120
agcttgtgga gtataggggc cgagatgaca aatcaggaca agtaaaggta tttattaggc 180
tattatgcct taattatita taatttgctt aaacaatgtt tttaaaaaat atttacagct 240
attnacttgt atatcagacc ttacatgaa tttagcttat tgttttt 287

```

```

<210> 63
<211> 211
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c17-5-5

```

```

<400> 63
attactattg agccttagac tatgatggat atctataaga agaacaagca aagcttgggt 60
cgcttatggt ggcctttgtg atttacattt tactctactt cgaattttca attaatttga 120
ttatattctt ttgattagtt tagttctata cttaacttgg gattgttgat ttactttgac 180
ctcttcactt agtatttctca cttagttatt g 211

```

```

<210> 64
<211> 211
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c17-5-8 ; Arabidopsis genomic homology

```

```

<400> 64
attgaagagg attggggaaa ttcctgctgt tgaggagttt gtttacctta aattataaga 60
actgtttgat ttctgtctga attcgctaca aagcaaaaatt ttgatgatgt tatttgttta 120
ccagtagtag tctagtgcag gatacaaaaa taatttggat gtgaaattag aagtgtagta 180
catttggttg tcaatttgac aatctttttg g 211

```

```

<210> 65
<211> 187
<212> DNA
<213> Nicotiana tabacum

```

<220>
 <223> plasmid c17-6-2
 <220>
 <221> misc_feature
 <222> (134)..(173)
 <223> n can be any nucleotide
 <400> 65
 gatagtctat tagttaccca aacctgctcc gtatatatttg catattgtca aagtgatctt 60
 tcagggtactt cgtgattggt gtattcattc taaattttgc gatcaaaata gttcatcctt 120
 agtgattgta caantaatac taaaactggc actatttngg ttggaattca cantttctca 180
 cataatt 187

<210> 66
 <211> 382
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c18-1-2 ; homology with DNA-J domain
 containing protein

<220>
 <221> misc_feature
 <222> (53)..(53)
 <223> n can be any nucleotide

<220>
 <221> misc_feature
 <222> (72)..(72)
 <223> n can be any nucleotide

<400> 66
 cttgataaga ggatggcaaa cattcaaagc cgcacctcga gttcggaggt ttnatcccgg 60
 tggtttgaac angttatgac aagaagggaa gcagcattaa ttcttggagt cagagaaagt 120
 gctgtcctgg agaagataaa ggaggctcac aggagagtaa tggttgcaaa tcatccagac 180
 gccggtggtg gccattatat tgcttccaaa atcaatgaag ctaaggaagt cttgttaggg 240
 aaaaccaaga cagctaattc cgctttctaa ttcaccattt tgtttgcacc ttccttctta 300
 acagcttaat tgtccgtata cgtgtaacaa agtgaatttg tatccgtaga catgttacta 360
 tcataattta ggagacttct tt 382

<210> 67
 <211> 340
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c18-2-1 ; homology with CCT (chaperonin
 containing TCP-1) beta subunit

<400> 67
 aatatctgag tcgttcaaag tcaaacaggc agtgttgctc tctgccactg aggctgctga 60

aatgatccta	agggttgacg	aaatcatcac	ttgtgcccc	aggaggagag	agggaatgta	120
aaaacaatat	tggtcatggt	taagctgttg	agatgactcg	tatattatta	tggtttgaga	180
atttgagatg	gtaggtgtgg	gctgtaaacg	agtcaaata	tagattgcta	ttggaaccat	240
gctaaagtgc	actgcgctga	gtagtttctt	ttgaggagca	aatgttttgg	tttgttttca	300
taatgtatgc	atgcttctat	agaaaacatt	tgttcgatac			340

<210> 68
 <211> 336
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c19-2-11

<220>

<221> misc_feature

<222> (70)..(294)

<223> n can be any nucleotide

<400> 68						
aaataagggt	gcggaagcaa	acaatccagg	acattctgct	ggatcattgg	tataccgtaa	60
tgaagggttn	gttantttgt	ttctgtggca	ttgttcaaat	cttttatcag	tnctccgctt	120
ctatagaggc	aaaagggaat	cctttctttc	agcatgtacc	tgtaataatt	tgtaaaaaata	180
aaagttgata	agtcattgtg	ctagctgtgt	taatagaaga	aagagatgag	agtgagattt	240
agtatatatg	ttttatctat	accttnctgt	ggatgtgtag	cttttactgc	tcancctcata	300
cctcattgac	acatctaata	aaattattcc	acttct			336

<210> 69
 <211> 338
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c19-3-10

<220>

<221> misc_feature

<222> (63)..(324)

<223> n can be any nucleotide

<400> 69						
caggcaacta	ataccaagcc	attagtttct	cattatgaaa	aactttacaa	agacaaaatt	60
acncanaact	acaagccaaa	aaagctcaac	atagtaactn	tgatcaaata	atcatataat	120
atttgcagcc	ttggacacac	ctcagcaaca	gaatgggaacn	tcaacaacac	taanaanttg	180
cacacctaata	tccaaaacaa	aaagactcga	ctccgtatca	naaantangg	tttacntgaa	240
aatgtatgat	ggtnanaca	actgaaactg	tctaachnant	ataanttcnc	nctctcaana	300
caancnttat	ctctgttcgt	tnanccgttt	ggttttat			338

<210> 70
 <211> 323
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c19-4-19 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (102)..(154)

<223> n can be any nucleotide

<400> 70

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actaagtttc tgcatttggc ttgatttctt atcaagttga gacaatattt gtcattacaa 60
ggcattttta gtaccaaaaa aacatttagca gtaactaaaa antatanctt ctgggtttggg 120
gggattcanc aatttgaaga ntctgttcga tgantttaca agctttcttg ctcctaattct 180
ccactctcat gctttcactc ttctcaatct tatcgtaaga ttccttcatt ttcagagacc 240
tcctcaattt tgtcttcaag ttcattcatta atctctcaaa tcccatcatc tccactctgt 300
atttcttctc aatttaattg cct                                     323
```

<210> 71

<211> 326

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c19-4-22

<220>

<221> misc_feature

<222> (111)..(323)

<223> n can be any nucleotide

<400> 71

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taaaggatat tgaaaagtaa atcctgcaag cacatataaa ggtatgtttc tacaaaaaca 60
taaatcgtat aggtagaaat gaaaggcggg ctgagagggg aagtgcagca nagtgatctc 120
ctgataggac ttctgaacca catnctacgt nggcttttaa gcactcaaag ccactactgg 180
agaaacagca ctctccactt gtatctcagg aatgcactat aagaaaatct antatactan 240
ctggacaata taataggtag gtatttaagt ggaaaagggg aaaggggacaa gcccattatc 300
taccatgttt tgaactgcgc acncgg                                     326
```

<210> 72

<211> 256

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c19-5-1

<220>

<221> misc_feature

<222> (25)..(220)

<223> n can be any nucleotide

<400> 72

```
atatacatct ggagcaaatc acgantttta atacaaaact caccctacaa aacatggant 60
cnccactgca tcttaggcat ntggacagca anaaaacaag caanttgttt ggccgcctnc 120
actatttaca ttactctat tttgaatttt ttaatcaatt tgattatntt atttggttat 180
tttanttcta cacttaatct gggattgctg attcagtttn gacttcttta cttagtattc 240
```


tcacttcgtc actggc

256

<210> 73
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-5-4

<220>

<221> misc_feature

<222> (25)..(199)

<223> n can be any nucleotide

<400> 73
atttaattga ttagcggaaa atctnctttt gtttngggtt atattgcaca ttctcatgga 60
tatttttact atttgtttca tagtttaaca tcagcaagtg ctttcttatt ctggtatatt 120
gacgccaatg tantaggctt tgactttctt ttaaacattg ttgttggtga catctaaagg 180
ttctctaaat ttgaatttnc actcttcaat ttgcttcctt tgaatgcaat attgctcgtc 240
agctttgcat ctttgtg 257

<210> 74
<211> 242
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-6-3

<220>

<221> misc_feature

<222> (70)..(210)

<223> n can be any nucleotide

<400> 74
caaactagga tgtctgaaag actgaaagcg ttagaagtaa ataagtactc atttacagcg 60
gctgggtgtn acataccaaa acaaaacatt caacaagatt gtatccaaaa gaatacctgg 120
aaaaattaca acacttgga actgaanaac cttanctgac cccagaaaac cattaaaggt 180
aatatagcgc atctttacac gggtgtgaan atcacaaaat atcctcaatt tgttgcctaa 240
ct 242

<210> 75
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-7-4 ; homology with putative
translation initiation factor 2B beta sub. NIFb

<220>

<221> misc_feature

<222> (11)..(11)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (176)..(176)

<223> n can be any nucleotide

<400> 75

ataaactata	ntaccattta	gttggttgata	atacgaatga	ataaaccatt	cgacaactta	60
acttttcagt	caacaatagc	atacgtgttg	tctaataata	ccacaaagga	aaaccaccat	120
caagtagtac	tctgcatatc	cgaaatcaca	aaactccagc	acaaatctaa	tctcanaatc	180
aatctacaaa	ctccaaaaat	cgcgatgctc	tcttcatctg	tttattgcag	tcagtataat	240
gtaggtgcaa	catcttg					257

<210> 76

<211> 384

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-1-10

<400> 76

gtgcagtaaa	ctgaataggt	tgacagagct	agctgccaga	tgactcttca	tgcggtaggg	60
tttttcttat	attactgcc	tacagtattg	gagctggaga	tatcaagacc	gtgctagctc	120
tgctgattag	ttgtccgtat	agatgacagt	gatacataag	ctgacttgga	atccaagtat	180
ctggtctacc	acaattgatt	ttctttggga	tttactcaca	atattcttaa	acgatttttg	240
ccggataaat	gcaatattca	ttgattgtaa	tcaatcacta	caaggaggat	gaagaatata	300
ttcttaaatg	atttttgcca	gataaatgta	atattcatct	atatggatag	atgaattctt	360
gatcaaatgt	aagttcatgt	cgat				384

<210> 77

<211> 181

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-11-14

<400> 77

tgatgcgcat	atcaaaaacta	attattatcc	aagccaaagc	tatcctttgc	cagttgcttg	60
ataacacata	tcttttgtgc	ttgattttta	aatacatgag	gtgtatttgc	cgttgagtca	120
tattgcagcg	gtgttcaatg	taatttacac	tgatacaaaa	taaggaatt	tgtatattgt	180
g						181

<210> 78

<211> 182

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-11-2

<400> 78

aggaaatact	gcatacaacg	gacaacaact	cgatgcaggt	gaagaatcct	agtgtctgtaa	60
ttgctaataa	caagcacata	gtttgtctgc	tgtcttttta	ctttaatatt	ttcccccttg	120

aagttgttgg aatcgtatta attttgttag ttaaaggcgg atcaatcaat atatctttcc 180
tg 182

<210> 79
<211> 359
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-2-1

<400> 79
aacgggatac tgaatggtag gacggcctct tcttcgacca ctagcaacca tgtagccgac 60
caagttcaaa gatgaaacat actgtatttt gccagtggac attctttttg tgtggcttat 120
ccttataggt ttttgttcat tatctctggt attccttgtc aaagtacatt atgatggcag 180
acctcttttag agagatcctc aaagtttatg tgttgtttat ttatatcatt ttttctcgat 240
agttaaatat taggggatat tcttctttcg gccatttgat tttggttgaa ggtcttgaat 300
gtcgcgaagaa atagctcagt ttaaaggagtg tgatgaatgt tctctccttc tctgccgcc 359

<210> 80
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-2-3

<400> 80
agaaatatag ggtaaggctg cgtataatag attcttgttg ttcgaccctt ccctggcacc 60
cgagcttagt gcaccgggtt gcccttttat ttcagaagat gtatattatg aactcttggg 120
ttagattgag ttcagattat tttttaagaa attatttttt agcaaagagt aagctcactc 180
tttgttctta ttagtaataa gtttggttaag ttatcctttc acaaagtata tacagtattg 240
gtgtgaggtg tgtgagggtc atattcttgt gtattaattg ttgcaatgca acgtgtaatt 300
gctcaattgg ccagattggt tttctcttct taatgctaag cactacttgt tatcat 356

<210> 81
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-4-1

<400> 81
gtggttttcg tgaatcgtga cgccaaatat cagttagcaa tggttaactaa ctccatggca 60
acatactgga aatgagtgtg aaatctgaat ttcagagtgt gtgtgacttc ttcttgtata 120
gctgggtggt gttaacttgt cctagattca ctctcactct cattgggtgtg gtccctgtgc 180
tagtgacggg tcttattgtg gctcttttaga gttgatgtta tatttactct acctatctgt 240
tgaagtttat ccaattggtg tacttttttt gggttgtttt aacaaagtgc tattcgaatt 300
tgtaatttca atttcgatca aaccacctta aatctgct 338

<210> 82
<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-5-6

<400> 82

```

ggtggcctaa tttgcagttt tgatttagtg tcatcattag ctatcttctg gattgaagtt 60
aaatgccgga aatctgtttg taacctcaat cttcaacaaa tcaattgaaa tatcacttca 120
aggcacttca ggtcctcctt gcacgggttg agagcttcca acagatttcg gagattcact 180
aggtagctgc ttggcattcg cagcccaatg cttctccctc tatcttattt tctcctattt 240
tagttctgta atagactatg tagactcttt ctgttttaaa tcggttagta gatattcatg 300
actggtgaca ccccgttgtc gggctatgtc tatttc 336

```

<210> 83
 <211> 256
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c2-6-5

```

<400> 83
ttaaagaatg ttttgtctaa tcttgtgctg gctttaatgc acgtcaaagt ttgctgtcat 60
cccctggcaa tagcggacaa caaatctgcc agctactgat gctgatgggt atttggttaa 120
gtggagaagt aaataggatt ttatatctaa tattattgcc ttccatagtt ctcagagtat 180
atgtgtagaa caagcacagc tgcaaattgt tattactaat tttatggtgg aaatctgttg 240
aaagttattt tctttt 256

```

<210> 84
 <211> 254
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c2-7-1 ; homology with patatin 3'-strand

```

<400> 84
atgatgtcgg ttttgcattg tggaaatgca agttttactt tggcagattg ctccaagtcc 60
ttaggggggtg atggatttcc cctacaacag aattactatt ttccctttct ttttatgttg 120
ttttggctta gaaggatgat tttatttatt taacacaacc aaaagtctac ataatcctta 180
gcatatttca aatttacata gagggatatt tctattgaaa tttatccctt aacgttacaa 240
gcgcttattc tttt 254

```

<210> 85
 <211> 219
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c2-9-14

```

<400> 85
gggaatacat tgggtttgtc gtttgtttgt ttggatgtta gtagaccggc aagatatcta 60
gcattttgct tctgttaaca tggacattat ggatttgtaa attcaactga ctacttgtag 120
acgtctctct ggacattcgg gttattactt ggtacaagtt aataacactt atgctctctc 180
ttattttatg ctttctgatg aatattcctt ttccctctg 219

```

<210> 86
 <211> 337
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c20-1-4 ; homology with DNA-binding protein (pabf) [I]

<400> 86
gaagatgctc ttagacttgg aggcagtgtg gctacctacc tctaattgtca atttgtagg 60
ttaaagcagg atttgataatt ttgttgcaca gtatgaagta tgtttttagtt ctaactgtat 120
tagcagttga tttcgtcatt tgataattac cttattctgc taatttggtt aatgacaatt 180
aagggggaga caaatcatg ctctgtgggct atatgtactg ttgtttgagt atgttgaatg 240
gatggaaatg cctttgttag atagatgtat aatgccggca ttatccctca tcaacagttg 300
cctttgcaaa tgctgtaaaa gcatttgaat tttattg 337

<210> 87
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-2-4

<400> 87
aaagcaactc cacgttagtg ttataaaacg agtttaataa agtttgactc tgatactatg 60
tgaaagaatc taagcactaa aacaaaacct ttaggcaata gtataacatt gagatgtttc 120
ctttctaatt taaagaagga tagaagttca gtgcactctg ctcaacagat gtagtacaag 180
gattcttgaa ccaaggattt tgatggactt catgttgaga ttggaaaact gaattcatta 240
ctggagatca ttgttcattg ccctataaat ttgaaatttc aaagatacaa atcaaattac 300
ttatatgtgg catacaacaa gacactacta atacata 337

<210> 88
<211> 92
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-3-6

<400> 88
ggttgaccgt gcttaatatata ggcagggagg ttgataatta tataaagcac atctgaatgt 60
taatccacgt aagaacttaa tttgattgct tt 92

<210> 89
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-4-1

<400> 89
gcatagactt ttttccacca tcagattagt tggcttgcca taagagacga cttcttttag 60
caaatctata tgataacctg aagaatatag taagaattaa tctgctataa ccagtttaat 120
agtactaatt acaacttttt ttttaaagtt gtttgtaaaa catttttcat gccattttgt 180
ttgtcaagta ccgaaaaaac gtgggttggc tacaaaagtc ttaacctggc tagctagcta 240
cctgctactg agtatct 257

<210> 90
<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c4-1-2

<220>

<221> misc_feature

<222> (44)..(45)

<223> n can be any nucleotide

<400> 90

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taatcaaaat tggtaaaaca atccaaacca aaaaaaacgg tttntgttg ctcttgtttg 60
aaatatattc gaatgttcct taatacctag cgtatgtaat aataaaaatg tactcttggt 120
gctcttgttt gtattgggat tatttaatta tatttgagat ttataattta ttaaaggcta 180
atcgaatagt gttgactgat gtttggaata tgatcatcaga tatcaatgtt ggaagccatt 240
tagctcagta aaattatatt aactaaatca aaagaataaa atactatagg ttggagtaaa 300
taagttgta atggtagtgt ttttctattt agtcatttgg gatta 345
```

<210> 91

<211> 193

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c4-3-3

<400> 91

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tactcacggg gattaatctc atcacggttt caaatggaca aacaattatt ttacatggag 60
agtagagacc ctccagcttc tttttattgt tagtagtagt gtgaattctc gtgttctcaa 120
tttgatagt tatggtttct aacttatgta ttagatcatt ttaacaagca gcacagagat 180
caaattgttc act 193
```

<210> 92

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c5-1-2

<400> 92

```
aaactagtgg tttatttggt tcatcgtgaa tatggagcag ctgcaataat atcttcacaa 60
tagtactcat tgactagatt tgacacttcg gatgaagcca aggcattctc agagtttttg 120
attctacaat gtttccaagt tatactctgt tttaatcgtt tctgcttgta gcttaattgt 180
cttttgatgc tgtataccgt gtccaagtat gattgtagtt ttagggaatt tcagattgca 240
aggcctttat ttactcggat caaatttgta attgctagtc cccttttttt gagaaattct 300
gtatgtccca tttctttctt ccaatggaac tttcacttta 340
```

<210> 93

<211> 343

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c6-8-13

<400> 93

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agcagaaaga caagtgtggt tctggagcca tgaaatcgcc cgagtactct gcctcctctt 60
gttctggtcc aatgcagttt tccactgggt ttgctgtggc gtaagtcttg tatggtacgc 120
aactcaaaat aataaataag gaaactgttt atacagcttt tggaaagcta acccaataag 180
atttggtcat aagtagatgg gttatgttca gttttgagca ggcaatctct ctgaatggaa 240
tgttgttcag cctgccccta ttgagaggaa gaggacttct ttttttctt aaacccatag 300
acaagttcat ctataaaaat taatcattat tctttctttc ctt 343
```

<210> 94
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-4

<400> 94
gataggatc agatggacct tataagtga aaaactccta atgcaatcat ctttacttat 60
tggaatatatt tatagtgtga cagatacttg gccaaagtgc acagttatat gtactattta 120
atgaacaagt tttatggtgt ttggtatatg atgtaatttg ttacttcaga atttattctt 180
ctgagtgttt cactggttagc atgattttaca agctaattgt atccattttc tgagggatag 240
gatacagtta gattgctttt caatatctga ttgacacctt tgccctatga ttcttgtttt 300
ggaatggata caagcaagct tattgctggt ctgattg 337

<210> 95
<211> 294
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-9

<220>

<221> misc_feature

<222> (165)..(291)

<223> n can be any nucleotide

<400> 95
atctacacga gcttcgtatg tgtaagacta ctggatcaga ttatccactg ctctgatacc 60
atattaaaat cagtgcgta atgaagcaat tgaactcgag gtatgctcca attatggaaa 120
tggaacttg gcgaagaagc cccaaattag gggcatgtgc gacannngag aagaagagaa 180
cttagaagtg aaagtcctca ttgtattgac tatgtaatgt cgtatatatc agtggtttta 240
aagggtgtggc gtaaggctag gcattttaca catacctcag cggggcgtaa nata 294

<210> 96
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-2

<220>

<221> misc_feature

<222> (37)..(234)

<223> n can be any nucleotide

<400> 96
caaaggactg tgcttcatag tgggtgctggg agaggtnntg cagccactga cacatcaagc 60
accaacgagg aaaaggaatt gaaagaaaat aataaattcg atgtaggatc aaatttctat 120
ttggttgggg taattttant gaagttgata ctgcaacagg agaatgacag tcctttgaaa 180
tttnaagtta ctattaatcc aacaagagat tgcgaatatg ggaggtatga gatnatctct 240
gtttctttac cgtcctttac atctgaaggc aacttagcat aggagttctt aaatgtatca 300

aatatcaata ttttcagcag agttcatttg ttctttat

338

<210> 97
<211> 341
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-6

<400> 97
agtgaagggg gcaagagaag aaaaggaaaa gaagaaaatg tcagtcacaa acattcaagt 60
gtttatatgt attcaacttt tatactttct ttcaaagat ttttactttt gcagatgggt 120
gaaagaaaaa gaaaagagtt tttccaaact cgagacagaa aaagaaaaga aaaagcattc 180
ctctcttctg aatcttgatt gcgtcttttg tgtttgcgga caaatgtcct gagatgggtg 240
aacttcacat ggtcgcgtgg tgttggtgctt tgtgataaaa tgtatttgtt atttatcatc 300
tttctactat aaatcgaaat tttattaagt tgaagtcggt a 341

<210> 98
<211> 314
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-10

<400> 98
atagcatata tatgttgaag cccctgctcc caactcaacc ccctcctttt cttacagcca 60
ttaatatatt ttggaatagc tatttcctat tttaggaaaa aacgaccatg tattgttcat 120
tgacaagtac ttccataccc tgctcaaagc aatatgtggt ttctcgact tggaagttaa 180
ttttgctgtg gaacaactct tgtagctta gtggttggtg gtgagctata actcggcctg 240
tgtgatttgt tacatttggg tgagcatttt ctcttatata agaagagaca gtgaggtgtc 300
tgtctcatgg tcag 314

<210> 99
<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-3 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (89)..(89)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (186)..(186)

<223> n can be any nucleotide

<400> 99
ggctgagaag aagaagcgca aagctcagtt gcaggaggcc aatcggaaaa aaatgaataa 60
gagagtagag cgtaaaatgg ctgcagttnc tagggataga gcatgggcag aaagactggc 120


```

agaactgaag aagctcgagg aagagaagaa ggcagccatg gcttgatggt tattgaacag 180
agtttngatc tgtaattttt ctctcttggt tttgagagtg aaaaatatat taatccctta 240
tttaataggc acaattttct tcacacaatt tttatt 276

```

```

<210> 100
<211> 418
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c7-3-9

```

```

<220>

```

```

<221> misc_feature

```

```

<222> (3)..(409)

```

```

<223> n can be any nucleotide

```

```

<400> 100
acnaatnaga antaccacgt gnantgtcnt gntacngtna taagngaaga ggttcgaatcc 60
ngntcatcnc aaatgncant ggccccgtgg naagctcagc cngacaccg gantgtttgc 120
nngnggtntt attacagcta anntttattt ctccaaangn gataanagat ngttctgtga 180
nnaggntnng attgnatccg ccggaganca gaaagtnatt nttgcatcat anagtnggtn 240
agangtgact cccntntctn tgtcngnata tntntattgg ngggggntnt tttagnattc 300
cagtnattc cganatatag atcncanatt ncnatanntn tacnanngcg cccccgcncg 360
nntgtannnc atnngggaga tctcccanac gaggccggan gtagagtngt aaaatctc 418

```

```

<210> 101
<211> 244
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c8-1-5

```

```

<400> 101
ggaatatgca taattttgtt ttcttttttg tttaaaagag ttcaacctag ttttatctgc 60
cagaagagag aaacatcaag atgtgagcat cagacaagct tataatactc tctctatata 120
gatttctaca aagcttattt ttggtgaatg cttgtgttgt gtgtaatact tcaaccccat 180
ggaaatgcta cgtttattag ctcgtgctgt ggcacccaaa tgaatcttga ttgtgtcatg 240
ttct 244

```

```

<210> 102
<211> 346
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c9-1-4 ; homology with Drosophila heat
shock protein 82

```

```

<400> 102
gaagtcgagg accgtgcccc acggtcagca attacaagag taaatgcaga tgatgttcgg 60
gtcactgtat ccgcacctgc agctcgtgga gaagctaaca atgaacttat ggaattcatg 120
ggtcagagtac tgggtctgaa actatctcag atgactctcc aaagagggtg gaatagcaaa 180
tcaaagcttc ttgtagtgga ggatttgaca gctagacaag tatatgagaa actcttgga 240
gctgccaac cttgagatgg ctccctgac cttttcttct ttgtcatttt ttccatgttt 300
gtaacattgg atttttagtt tcataaaatt gaattcagtt gtcttt 346

```

<210> 103
 <211> 360
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g10-1-1 ; Arabidopsis genomic homology

<400> 103
 gaacgagaac aaaccatctc aaaagtacat cgagatagtg actgaagata attttgaatt 60
 ttgggttcacg ggctttgtac gatatgaaaa agctttcttg aattttacaaa aggctatttc 120
 catcacgaat tagctagctg ttaggcatta gaatttttag ggttttaaag aggattcata 180
 attctgtaat tgttcttttt tctttattaa atgttgaact ggtagcatct aatctatgct 240
 tgttcatcat tttcttttct ctcaacggaa gaggatttga gattttatgag aattgaattt 300
 tgtagattct gaaatttaac gaatttctca acatatatat aagatttaga ccaaggttac 360

<210> 104
 <211> 556
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g12-1-21 ; Arabidopsis genomic
 ABA-regulated gene cluster homology

<400> 104
 ggtgggattt gactatgcat atcgcaaagc aatgaattcg actatgaaat tcatcacaag 60
 ctcaaagaac aaggcgtata ctttttttag aacgactacc cccgatcact ttgagaatgg 120
 tgaatggaat acgggagggt attgtaatag aacaggaccc ttcaaacaag atgaggttga 180
 cattggttat gtagatgagg tgatgcgcaa aattgaatta gaagaattcg agagtataatc 240
 gagaacagaa tctgcagaca gggttgacaat gaaattgttc gataccactt tcttttcgct 300
 gctgagacca gatgggcacc ctggagtcta caggcaatat cagccatttg ctaaagaaaa 360
 tatgaacaaa aagattcaga atgattgtct acattgggtc ttgcccggcc caatagattc 420
 gtggaacgat gtaatgatgg aaatgtttgt caccagttga aaatgggtgt acattagatt 480
 ttgattttgc tcccacaatt gtattgttca tctgcaaaag atgggttcac actatttttc 540
 accattgttt cctctc 556

<210> 105
 <211> 579
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g12-1-5 ; Arabidopsis membrane related
 protein CP5 homology

<400> 105
 tattattcaa gttggtatat tggagaagtg gaatcaagta gaggtaacag ccagccgacg 60
 cgatgtgaag tgattctatt ccatcatgaa gatattggga tcccatggga aattgcaaaa 120
 tttggggtaa agcaaggatg gtggggagct gtgaggaaga ttgagcgggg attccgtgcc 180
 taccagaaaag ctaaagcatc tggcttgaaa atatctcatt gtgcttttat ggctagagtt 240
 aatacaaaaa ttgatcgaga atacttgaag tcaatggaag atgatgagga ctcatctgaa 300
 actgaattgc aagcttcacc tgcaaaacct gagggcatga acataccaaa gctgattatc 360
 attggtggag ctgtggcagt tgcttgtacc cttaatcaag gaatcttacc caaggtgctt 420
 ttgtttaatg ctgtgaaaag gtttggaagt ataggaagga gagcatgtcc aaggacatga 480
 catttgattc atgcgtgcat tgcgcatttg ttttttcctt gttaagcat tcacttttaa 540
 gctctttata tattttaaaac aagcaagtgt tattttgtc 579

<210> 106
 <211> 358

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-2-4 ; homology with vetaspiradiene
synthase PVS4 (sesquiterpene cyclase)

<400> 106
gatagcatgg aaggatgtga atgaaggaat tcttcgacca actcctgttt ctacagaaat 60
tctcactcgt attctcaatc tcgctcgtat tatagatgtc acttacaagc acaatcaaga 120
tggatacact catccagaaa aggttctaaa acctcacatc atcgctttac tggaggactc 180
cattgaaatc taaaccattg agtgcttttt tcatctcggg gatcgtttta tttttatttt 240
taaataaagg atcagaactg tgtttctgtg ttcctcttta tataagcaag ttgagtttcc 300
tacttctgtt caaacctgtt gtttgttctt ggcgtctgaa taatataatt ttgtttgc 358

<210> 107
<211> 264
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-10

<220>

<221> misc_feature

<222> (219)..(220)

<223> n can be any nucleotide

<400> 107
caaagataaa gaaggctgga gttgtaagac aggagcttgc taagcttaag aaggacgctg 60
cttaagaact ctttgattag tgagatttgt atgataggag ttttggaagt cgttggtgtt 120
tgcttttaga ttttggttca ttactggcaa gtcatttggg ttcattctttg gtgtcattga 180
agactcctag aaatcaattt cccaatagtt ttcatttgnn ttatgatggt gaacattctc 240
ttcgagaca cttcattttg ttgc 264

<210> 108
<211> 211
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-22 ; homology with orf 03 A.
thaliana

<400> 108
cttccatcaa gcagggactg gttgggggac tttatggtgt ggaaaccagc agttggtatg 60
gagaatagcc aatcattctg ggcaatttta acaatatgga tagcttttgg tggagctgca 120
ctctttttgc aaaagtgaat catatacaag taaagctggt tattgtctag ctttctattc 180
tttattggta tatatagtct gatgtgtatt g 211

<210> 109
<211> 262
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-3 ; homology with sequence 161 from
patent EP0953640

<400> 109
acattataat aggatgtaaa gaatgaagca ggaagcagtt tcttactaga acttctacta 60
taattgtgga tttatattgg gttgttcatt cagaaaagctt tgccaagtaa cttagaatta 120
gtgtttacat tttgatgtct ttgttttgat attactaaga agaaaagata ttgggggaaaa 180
aagaaagcca gaccactgaa tggcaggctt gatatgaaaa ctggccatgt atagaaggat 240
atttcgttta tttcattttt tg 262

<210> 110
<211> 265
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-4

<400> 110
gcttcaagtg gatgatgatg atattaaggc catgattaaa ttgggccgtg gtgatgaaaa 60
tggtggtggt gtcacctttg aaggttttct ccaaattttg tctctttgat ttgttgcttt 120
gatgacgatg ataaatgtca gattaggtga acaagttttg gtttactttg tatttttcaa 180
tgatttggtt tactgtgctg cttcatatgc tattggctat tccgagaatt ctatttgaaa 240
acaaagaaga aaaagagttg ttccg 265

<210> 111
<211> 260
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-7

<400> 111
atgaagaaga agagggcggt ggtgatgact acattgagtt tgaggatgaa gacattgaca 60
aaatctaaat ctgaacgcaa agctgctggt actgagggtcc gttataggcc tttctaattg 120
ttttgtggag ctttttccat aaacattgag agtgtatctt gtgtatcgtt tgaagttatg 180
tatcaaactt tgtgcattgt gagttttgta ttagatttat gcttccatga aatgaatgca 240
atattctagc tggtgtctac 260

<210> 112
<211> 469
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-1-37 ; Arabidopsis genomic homology

<400> 112
atatttcttg aaacatctca acttgcata tccccacttc gtcaagatct accgccaagt 60
gtcatactgc accatcttta ctacgcggg cctgaagaac tacaatcacc attgcaaaga 120
aatagactta ctccgacgca gtattcactc tggatggatt cacaagggga ggaccaaata 180
tggaaggta ttaaagctac tctggacgac tatgtctgta aggtacggtc aagaggggac 240
aaggaattta gtcctgtcta tcctttgatg ctagaatcgc gctcttcttt atctgggaat 300
cgtttagagga gctttgagag aatgcaaagc tcaaatactc ttctcttggt atatgccctt 360
cccatattt ttgtttcaat aatattgtca cagatgaaca catagcagac cgttatctat 420
gtttcgttta gtgtcttact ttctttatat attttacctc aattgattg 469

<210> 113
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
 <223> plasmid g15-2-2 ;homology with ubiquitin [I] able
 to induce HR-like lesions

<400> 113
 gttgatgtcg ttgtgtcgtg ttgattgact gtgtctgttt ctgggtgtgg tcgtgatgtg 60
 ctttgtctac tgaggctctca aagatgttct atgctatctt tgtttgctgt ttctcttatg 120
 ttctctgttg tgaataaaga ttccgaattc tgccttaaaa aaaaaaaaaat gaagtttatg 180
 tatattggaa gaagcatttg tgtcgtcacc aagtcccat tgaatatatg ctgtgttttt 240
 gcttggtctaa tttgtgttta aactttcttt ctatctgtgc tcaatatact cctgaacaga 300
 ctgatgtacg attttaaagc tatgtatgta taaactctct tatcttttgc 350

<210> 114
 <211> 345
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g15-3-11 ; homology with sequence 7 form
 patent EP0953640 [I]

<400> 114
 gtggatgaag ttaaggtgac ccctgttgct tagaagtaca cagagctttt gtaatgggtca 60
 atagagtttt ttgcaatgct aatttcatac ttattaagct accactgtga ggcaattgct 120
 gtattttacc tatgtgattg ctttaaaacta tgaattagat gcctgctgtg agacttgtgt 180
 actattgctt ttaaggaagt gtggatctag ttgaacttcc tctcctttac tatgtgcact 240
 ttgatcttga ttcttagata gtcaagaagt aatatataaa attgtactac tatatttcaa 300
 atttttcatg tttcttgaag gatgaaatat aaatgagtta gtacc 345

<210> 115
 <211> 344
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g15-3-7 ; Arabidopsis genomic homology

<400> 115
 gatacatgga atgagttagt gtttgatctc atagggagag acttccagag tagacagagc 60
 aatgcttcat aagaagaagg atccttaatg ctaaaaaaca ttttttgtgc ttctacagca 120
 cagctacggg aagattatct atctctctcg aatggagttt agcttttttag ttactttaga 180
 tctcttggtg tagctggtgt tgtaatctat gtttagatat ccacggtaag ataattccta 240
 agttacacga aattttcaca ggtctcaagt atgtgtgcag ggatatttaa ctaaatacaa 300
 acgttttctt tgcaataaaa tatttcatct gatttttccc tcgc 344

<210> 116
 <211> 301
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g15-4-1

<400> 116
 tgaatgttta atgttagaaa gtgaattact ctctttatgt ggtgtctgaa catatgttca 60
 acattactct tcaaattacc aataattaat agtgcgacaa gttatagggt ataggttgat 120
 gaaaaattgt ttccatcttg taaattatag tgctaaattt atcacacatc tgtgtgcacc 180
 tatattatag tttctgcttt cattgaaaat gagtttcaag ttttctagtg gaattggata 240
 tgtagtatag aagttggagg gttgcttttc attcttttga aagggtaaaag caaacttaag 300
 c 301

<210> 117
 <211> 525
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g17-2-13 ; homology with wrky (zinc finger
 DNA binding protein)

<220>

<221> misc_feature

<222> (466)..(521)

<223> n can be any nucleotide

<400> 117
 aagtggatat tttggatgat gggttatagat ggaggaaata cggacagaag gctgtcaaga 60
 acaacagatt cccaagaagc tactaccgat gcacgcatca aggatgtaac gtgaagaaac 120
 aagtacaaag gctgtcaaag gatgaaggag tagtagtaac tacttatgaa ggcatgcatt 180
 cacatcccat tgagaagtcc acagataact ttgagcacat ttgactcag atgcaaactct 240
 atgcttcctt ttgaaacgtc catcacttca atgcctaagg catgacactc aattagtcac 300
 ttgtaaaata gtactacagt atattgtgta catgcgtttt gaacctagat gctatatattt 360
 gaaataaaac gcaacttcat tagggaattt aatttgatca ttgtacaact aaaagtaatg 420
 ttgtctatttt tttgttttta tcactttgtt tttgccggag ccatgncttc attttaactc 480
 tttcttttag aattaacaaa taattncatg ttggagaaga ncgtg 525

<210> 118
 <211> 225
 <212> DNA
 <213> Nicotiana tabacum

<220>

<223> plasmid g17-3-2

<400> 118
 gaccaaata gcaaatgaa gaaatgctgg agatcaccac atacttccag gcaaagcaac 60
 ctcaattttt gttacaaaa gatttcttga tttaactttt gaaagtaaac acgtgtgtgt 120
 agagaagtaa atgcaggcac tgggatttca atatcgtttc attgatgctg gtacagtagg 180
 agattgaaac taaacatttt cttgaagttc agtacgtgtt cattg 225

<210> 119
 <211> 412
 <212> DNA
 <213> Nicotiana tabacum

<220>

<223> plasmid g18-4-7 ; homology with L18 (60S)
 ribosomal protein

<400> 119
 attgagaagg ctggaggaga atgcttgacc tttgatcagc ttgctcttag agccccctctc 60
 gggcagaaca cggtagtctt taggggtcca aagaactcgc gggaagctgt taaacacttt 120
 ggtagagctc ctggtgtccc acacagccac acgaagcctt atgttcgggc aaaggggaagg 180
 aagtttgagc gagcaagagg gaaaagaaag agcagagggt tcaaggtttg aggaattgag 240
 agtgtttgag tgcacgatga gagaatttct tttagaagggt tttccctacc tactttttac 300
 catattagct tctttttctt gtcgaatttc ttatttcacc cctgtttctg tgacactcca 360
 acctatagcc gattttgaat gcttttatta tctattctac gaaattaagc tg 412

<210> 120
<211> 373
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-5-1

<220>

<400> 120
acattatcaa gacgaaggca ataagtgggc ttactcattc ttactgaaaa acgggggctgt 60
gaaatttggt gtaatcttca agaattgtact tgttgccatc aatagaaaag caaacaatat 120
tgtgttcagt tacagccttg ttgggtcttg ctgagagtta tttttctagt tcctgaaagt 180
tatcttgcaa gctatcatgt agctgtgtgg taattttcac aggtttgagc tacagttgaa 240
gccagtaaca tgtgttgata ttatagctaa aataactaat gcttacctgc agtttccgtt 300
tgtgtggaat aaggagaaga attgatgtgt aagcatggct tctgtgagtt gactctatta 360
tctattgcat tac 373

<210> 121
<211> 390
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-5-12 ; homology with
capsanthin/capsorubin synthase, promoter region

<400> 121
ggttgcaagg gtgtatccga accctatttg cagaaaaatt atactgtata tacaagggtca 60
aaattatattt ttctgtttat atagtttagat gttaaattgt cttggctttt tcgtgtattt 120
atttctttat attttgaatc ttcttggtga aaatcctagc tctgtacaca caaagagccg 180
acatgctgat ctctctctct ctctggacgg agagtcttct gaagtgattt tgtgcttctt 240
cagtgtgttt atagatcaat ttagtgtctt tgtcaaatgg atttctaagt gaaaaaagag 300
aaaaagtatt tcaatgcgtg tgacctacct tgcataaact ctgcatgatg gatatacaat 360
gtttctgctt gatatatgta tatgttttgg 390

<210> 122
<211> 381
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-6-12

<400> 122
tcttgcacga ggctggttat acaaggggact catggttgct tctgaatgac ttcattaaga 60
tcctggacca ccctggtttg aagatggagg tagaagtacc aattgactag ttacacctgc 120
aatttcattt actataattc agatgtatct gtgtacaagg cagccgtgtt attctgtttt 180
gttgaattcg cgcacctgca ttctcctgct gttttttgtt aaatctcttt ctttttcctt 240
cttttgcccc cgttttatgt ctgtttgctg ggcagggaca gaaacagaga aaccgccgtg 300
taattaagat aaaagctttc agcttattca gaagatcttg aatatgctat aattttaatc 360
tctcacaac tgtgtatctt t 381

<210> 123
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid g18-6-5

<400> 123

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ttagagaaaa agagagagga aaatcgtaga aaaatcttca aaaaactgag ttgagtaaaa 60
tttcaaaaaa ttttagttgt catttctctt ctggtctttc ctttccagtc gatctcttct 120
tcagaaaaaca aaaaaaaatg gttcaacttt agttttgagt ccagatttga tctcatttct 180
ttgctagagt ttcgtttgct gttatttgct gggtttttgc tttaccggtg gctgaacttc 240
cttcactctt atttctgctc tctaccagct atttcgagct ttatttgta agtattctag 300
gtacacactt tcaaactctgt actgtttctt catgaaaagg gctgaaaatt ttgaat 356
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<210> 124

<211> 293

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-7-5 ; Arabidopsis genomic homology

<400> 124

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aagaaaagta gcaccagggg ctgtgccttg ttgtggagga aaagtacaag ctgtagatgt 60
agaaggccgt ttcagatttt gctttctccc tatttgcttt aggttcaaga ggaagtatct 120
ctgtactctc tggtctaagc gtttggtttt gtattcttga tctccctatt ttcctcttgt 180
aatttctact ctcaattttt tgaacagcat cctataagtg taattattta tttgaaatag 240
tggttgagag ttgttcattt gctcaagaat atatgaaact tttgtagttg tgc 293
```

<210> 125

<211> 259

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-8-7

<220>

<221> misc_feature

<222> (104)..(104)

<223> n can be any nucleotide

<400> 125

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tgaagatgta gataaattgc tggaagatat aggggatgat gttggtgctg atgatggtga 60
cgatgaaaac tagaatgatg ttttttttct caagtaaatt tatntcattg tatttcttgt 120
tagtttttct ctctctcact cccctctggt tttctgtggc gcatagggtg tacattgtaa 180
aaatttccca ataccaacat aatttaagga tgtaaaccat cttcttgctt tgcttgtaat 240
ttcttacta ggttgcttt 259
```

<210> 126

<211> 491

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-5 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (485)..(485)

<223> n can be any nucleotide

<400> 126

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ggttttaata agcttattgg tggttggttg ttcgagtttt ttggttactt taggagagggc 60
aagtggtagg tggacgagtt ttgggggttat atttcaaagt gtagtgagtt caggatttgc 120
aactctgtta atgcttcaga gtcttgctgt gaacgtggtg ttgtatatgt attgcaaggc 180
atatcgtggg gagctggcgt ttgagatcgc ggaggagttt gcgagtcagt atgtgtgttt 240
gccttttgat aatgagaagg ttcctcatct tgtttgtgtt gttcaagatt gaatgtgcct 300
aaggtcagtg agattatgtt aggatgatgc agttagtagt ttgaagaagt agtgttttgt 360
tttactcgtg gcatgtatat agtttcttgt ttgttagata aatgattgaa gatgtgtgtt 420
acctgttggc aatgtgcac tttatatgta aaaaaagctt aataacctgtt atgaaattcc 480
ctccnagttt t
```

<210> 127

<211> 485

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-6

<220>

<221> misc_feature

<222> (467)..(467)

<223> n can be any nucleotide

<400> 127

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taggaaatga cttttgcagg agttaaatca tataaatatt tttttggact gcaaataatg 60
ataatttttc tttttctaac caaagcaaaa taatatcatt tgtgaaattc agtcggtgta 120
cctgaacatt attagtatta aaatggagaa atgagagAAC acgtatggcc actagagata 180
ttaaagctac ctaaatatga caatagatga agcagaggac agtataatat aattttcttt 240
taactataac atacattgcc ccctttatag atcaaagttt ttctactatt atttaattta 300
ttactataat aatcatctct ctctaggcgg ctagtggga ctatgctcaa cttgcaatat 360
ttaattttgt tttcatgttg ttcctttttc tggatgatgt ttttaactgtc gaaaaaattg 420
agagctaagt tgcatggttc tgagttcgaa ggattaaaag caatgtnaat caattggctc 480
tatgc
```

<210> 128

<211> 484

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-7 ; Arabidopsis genomic homology

<400> 128

```
ggaggaaga tctaggaatt tttccgagtt tgaacaattc ttggttgatc gtttctaccg 60
tcaatgaagg cagaaacagc ggttttgaat ccacctctca tctcttttga caacaagagg 120
gatgcttatg gatttgctgt acgacctcag catgtacaaa gataccgtga atatgctaata 180
atctacaagg aagaagagga agagaggtct gataggtgga acgatttttt ggagcgtcaa 240
gcagagtctg ctcaattacc cataaatggg atatctgcag acaaaagttc tactaatcct 300
ggtgccaaac catttagtca ggaggttaagt tgtgatgcac agaacgggga agaaggtcaa 360
cttgaaagtg caactgagaa ggatgtcata ctgacctctg tggagaggaa aatttgtcag 420
actcagatgt ggacggaaat tagaccctct ctacaggcag ttgaggatat gatgaacact 480
cgtg
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<210> 129

<211> 224
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g19-2-1

<400> 129
 tttttttttt ttgggtggcg gaggaaagcg tgtggaaaaa aagaaagaaa aaagagaacc 60
 atagagttaa aggccagatc atgtctgcta tgagtcacat tctgttggtg gaagagaatt 120
 cacttggtta attttacttc tcatatttta tatcatggga tttcatgttg gatggatgga 180
 ccagtgtgta tgtcaaatta attcttattg cgaaaaaaaa aaaa 224

<210> 130
 <211> 198
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g19-2-9

<400> 130
 ccagtgtaat tggactttgc gcaattgaga gacaaggggt tagagggtata tacgtgattg 60
 aagatcgtga tctatcttgc tatctctcat ttttttgaga tttttctctt cttctttttc 120
 cccaaatctg taattgatga gattctagac agtggttagtg tataatcact agataatcta 180
 tgtataatca gtttatcc 198

<210> 131
 <211> 204
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g2-1-2 ; homology with 5-epi-aristolochene synthase (sesquiterpene cyclase) [I]

<400> 131
 ggactccatc gaagtttgag ctgccaattg ttgctcatct taaagaaact tcattcttct 60
 gtgttgagaa agtagttata tatgtttttt taaattgtat aattaagttg ttagggaagct 120
 ggttttgcga ttgtgcagtg gacttcctaa ctaggacctc cttgtaagaa gtaatcttca 180
 agtgttatga attcacttgc attg 204

<210> 132
 <211> 313
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g20-2-20 ; Arabidopsis genomic homology

<400> 132
 tgcgagaaag accaagaaat ttgtattaga gcaaaaaatg gtgcttgggg gatttcgcgg 60
 gtgacacgag ggaaggagct ctatatggta cttgagaaag ccaatgagac cttcttttat 120
 gcctctgaag ctgttgaaaa gttcagtgac aggtattgca gtggcgcttt ttctttgtaa 180
 gagggaaact agatttttgt attgccgaga cacaggattc atacaaaaga catagctaca 240
 tatcttatgt tgttgtaatt tcaactttgt ttgtactgtt tataaataaa taaaaacttg 300
 atcctctcct ctt 313

<210> 133
 <211> 315

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-29

<400> 133
ttgcaatgaa ctttgtaact aagggtgggct ataaagaagg tttgggaact tcttatatatt 60
agttgtttac gagacaaatt cgtgctttcc tggtttatca agaaaagaat tgggtcaactt 120
aatgaagcat gtctccacac tgatctatct attctgattt ccagtgtaac agcttttttg 180
gccattacag tggttatttg atgatcacta gcattatcat atctagtaaa gtaaacacgt 240
caagtcaatt gatccattca actgtaacta tgctgaattt tacttatgga aaattcggaa 300
aatactatatt acttc 315

<210> 134
<211> 315
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-31

<400> 134
agaatatagc tactacaagg tggttctccc agtagatcaa ctcaaagcca ttactccgctc 60
aactatgctg tcaagaattt gcaagggtgca ttgctgggtc atcattcgtg gctagcgtgt 120
cattttcttg gtcatttcag atgaggtccg tgacactggg gcttgctttt gttgtagata 180
aaattctgta aagtatgcac atctgggtga ttgattgttg catacatgct aatttatcag 240
cggtttggtg tcttggtgac atctgtttcc tgaatttttt attatctttt agtattactt 300
tggttgggtc gattg 315

<210> 135
<211> 483
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-1 ; Arabidopsis genomic homology

<400> 135
attttgagac cagaagggaa gctcattgtc cgtgacaaag tggaaagctgt aaccgaatta 60
gaaagcatgt tcaagtctat gcattatgaa atccgtatga cctattcaaa ggacaaggaa 120
ggattgttgt gtgtgcagaa aacaatgtgg cgaccaacgg aggttgagac actaactaat 180
gcccttgctt agctgcttag cgtgtgtgcg gatgctgggt gtatatcatt cgagaggctt 240
tcatgccacg gtgactagat agtttttcga ttaaatttctt gttactgtat tcttgtcagg 300
ctaccgtgta ccattccata gcaaaattag tgctattatc actatatatt tgtggaaagt 360
aagttttgta atattatgtc attagttgtg gaggaggtgg acattcttgg aattgtaaat 420
gccattgggt taggacgggt gtaaaaattc aaaaacacca gaatgaaatt cgttttcaga 480
gcg 483

<210> 136
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-4 ; homology with ADP-ribosylation factor

<400> 136
atagcaatga cagagaccgt gttgtggagg caagagatga attgcacagg atgttgaacg 60
aggatgagct tcgggatgct gtgctgcttg tgtttgctaa caaacaagat cttcctaattg 120

caatgaatgc	tgctgaaata	actgataagc	ttggactcca	ctctctcagg	cagcgctcact	180
ggtacatcca	gagcacttgt	gcaacttctg	gagagggact	ttatgagggg	cttgattggc	240
tttctaaca	tattgctaac	aaggcctaaa	ccaacgtaga	gttggtgcgg	gttgatcctg	300
gatgcaggcg	ggttttttatc	tagttctttt	tccttttttt	cccgaacatt	cccagaatct	360
gtgtggttat	gaatatccct	tgaaagtgat	ttgcttcttg	gtaggaccta	ttgaaatggt	420
tttgtaatac	agtgggttga	tatatgtaat	tgtttggtta	gtttaaagta	taatgctata	480
atttgtaaca	gagattagat	gtttgatgtt	tcattggtaa	atggtaatgg	tatacttccc	540
tgtttgttcc	ttc					553

<210> 137
 <211> 501
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g6-2-13 ; homology with ACC oxidase

<400> 137	
gagctctggt	aattaacatt
gtattgagca	tcgagttatg
tgaaccctaa	gcctagtgat
aaccaattta	caaacaagtt
atgatgggaa	agacactggt
aagaataaga	agtgcgctta
cgactactca	gcaatttaaa
atatttttgg	gattaattag
tgatattatg	gcaaatatag
c	

<210> 138
 <211> 373
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g6-3-7 ; homology with ATP citrate lyase

<400> 138	
aaatagtaga	gatcggttac
tcgggcacac	atttgatcag
atgttctcta	caccaagtga
ctatccagca	ttttatcgaa
tttctgctag	tattttgtac
agacaactct	tttagtttca
acacattcat	tgt

<210> 139
 <211> 301
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g6-4-4

<400> 139	
gttgggggaa	aaggcaaaaa
gcatctgcta	aagaacattc
attcttcttt	cgtccaaaca
atttcattct	tgtgttcttg
tgcattgtca	cagtgtgaagg
g	

<210> 140
<211> 299
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-5

<400> 140
aggttataga tgaaagacca atggcttttag taactgatgc tgttgccaat gaagccaaag 60
ataaaggctc aagctagaaa ttgcagtaat actgatttta ttgctgtctt ctttaacatt 120
accatcacta actagtcttc cttttttctt actgggtgat ttactttcaa gtattttatt 180
tgatgaggcg atatctcatt acttttgttt ttccagttgt ttgctttagt gaatttatat 240
gctggaagga tttgaggtat tagatagaaa gcactctctg atttaacttc aattatgtg 299

<210> 141
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-1 ; homology with a A. thaliana gene
homologous to MEI2 (meiotic regulator)

<400> 141
cagtggagga ctcgaaatgg aacctgatga tcaaaataat ttgcttaatg gtattgcaaa 60
cttaagcatg tcttatagtt atccaaatgg tgctgcaact gttgtcgggg aacacccata 120
tggagagcat ccgtcaagga cattattcgt tcgaaatatt aacagcaacg tagaggactc 180
agagttgaaa tcgctctttg aagtagtgct taacttacca gtttctttta atttgcctct 240
gttaatttagc tatccttttt cgtacttcct ttattgcagt tgaaatgctt gtttctcatt 300
ttgtttgtgc aagagatatt ttctttttgga cgacttcata tgcttgaaca ttgttc 356

<210> 142
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-4

<400> 142
gctggtgatc aaggcttttg agatatcaaa gataaaatta tgataatgaa tttcaagaat 60
tccaatggcc agaatttgtc aaagaattca gatttatgga atttggaaga gtgaagaaga 120
gggaaagatt ggaaaacatc tttattgatc acttctgcaa acaacaacga gttagaggctg 180
atttagaatt taaagtttaa gagtttttat aaatttagag ttaaataatt gtatatattt 240
aatgaattgt ttaatatata tacaatatcg tcaataggtt attatacaaa tgataagttt 300
ttgtagggag tgtaaaggaa aaagttttga aaaagaggag gatttgtttc 350

<210> 143
<211> 481
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-2 ; homology with P glycoprotein-MDRP
(ATP binding cassette protein)

<400> 143
gcgagggcca tagtgaaaaa tccgaaaatc ctactattgg atgaggcgac gagcgcattg 60
gatgcagaat cagagagatt agttcaagat gcacttgacc gggatgatgg aaatcgtaca 120

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accgtggtgg tagcacatag attatcaacc attaaaggag cagatgtaat tgctgtagtc 180
aaaaatggag tgatcgtgga gaaagggaag catgagactc ttatcaacat caaagatggg 240
ttttatgcct ctttggtggc cctccacacg cgtgcttctt agttctactt ttttttcatt 300
aagtaaattg tattcatttt aatttcgtta tctttttgac ttttgctgaa gaagagtttc 360
tttaatagtg tactgcaact catataaagc atagtatagt agcattcttc aattaccaa 420
tgagagaagc aagtaaactt gcctccccga cttgacttga tgtgttctgg ttattaagtt 480
c

```

<210> 144
 <211> 480
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-2-6

```

<400> 144
agcaggacta gtcaagttgc atcttcacat tagaaatgct tgtatatatg tgtatcagcc 60
tatcaggtag atgtgctaga aagtttttag gagcagatac aaccctggaa acctgtacag 120
cttcttacgt cccttttata cctgtactat aagtaggtag gtggtggcct gaaatcccat 180
aagccaaaaa aaatatacaa gtaagcttca ccatgctcca ttacttagaa actgtacagc 240
ttgtgattta ccaaataatgt ctacattagt cctaataatt ccttagatat acgtagccta 300
agtattaagt caaacctgag ttttctgaag ggaaactttt tgtagcaatt cccttgatgt 360
tgttgactaa cttctcagca gttgcaagtg aatttcattt attgtttgct attttcctgc 420
tgcgtatgtt ctctcttaaa attgtaaaat gtttctgttt gtttcacacc agcttcatcc 480

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<210> 145
 <211> 447
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-3-17

```

<400> 145
tggggacagc aaaacctcct tggttgtgcc agtgcaaaga ttcaagtgtg acattaaaca 60
gggaacatgc tcagggaaag ctgaagatcg tagatgtctg aagttagttt tcccacgttt 120
tcactatttt agcagagatc cagaagggaag aggaggaaaa gcgttctacc ttaagcagct 180
agtcgtgttg tatcgtgcat atttcatttc tggtttggtt ttagatactt ctatgtacat 240
aaactatcaa ggtatttata tatgttcata ttttggcttt agctttcatt tcatatgcac 300
attcggctgt gggctctctc tgtaaaataa tgagttctat atcattataa gcattaagct 360
tctcttgtaa ttgtatcagt aatattaatc tcttcatttc attagttcca tgactcaacc 420
atcagcagtt aataaagagt ttgttttc

```

<210> 146
 <211> 450
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-3-4

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<400> 146
cagtgatagc aaatcaagta attttgaagg ggcagctgat ggttctcaca atgttgggtca 60
gagatacaga gagaggggtc agggtcagtc aaagcgtgga ggtgggaatt tccatggtag 120
gcaaggtggc tctggccgaa taaatgccaa ttatgattga ttgatgagga ggctaaaatg 180
tggatttagg tctttttagt ttgtgatgga tagcaactt accggataat ctttgcttag 240
tctgcatgtc tgggtggtgca gtcttaggtg gtagcttttg acgtggtaaa agagaatttg 300
ttggccaatg tcacacgggt gagctggact acagccgggt tttgccacat ggttttggga 360
aaaattattg tgtttggtgc aacagtaagt gcggcattat gagaactgta attaatttga 420
agaacattaa aatagttgcc cattttcttc

```

<210> 147
<211> 335
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-5-5

<400> 147
ggaaacacag aggagagat gatggtgacg aggagattga cagatacttg ggagttaaga 60
acgggaaact atcaggggaag ctatcaaaga agccaaagag aaaatgagga atatataatt 120
aagctatttt agtccaattt tgacttaatt gaggaatatt ataattaagc tatgttagtt 180
caattttgaa ctttaattagt tctttcatta ttccttggtg ggctgtaatt tgacatttct 240
gcaattctgc tgggatgggt ttgatcctag ggactctatt attttcattt tcttgtgaag 300
atccttgcct cctaataccta atatatacgt gcacc 335

<210> 148
<211> 245
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-6-1 ; homology with LOX lipoxxygenase

<400> 148
gtgaaagtgg acttactgga aaaggaattc ccaatagtgt ctcaatttga ggttctacag 60
cacgaatagc tgatatatag cttttgcagt cctcgtaac ctgcagaaat catccgcaac 120
ttaagcagga gtggcaacag atgtgtgtag atctattttt atgtcaatat ttgttttagcc 180
aaattccatt attgttagtg tgtgttttta caataaaatc aatgagcaaa tcccctcatt 240
ttccc 245

<210> 149
<211> 353
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-1-7

<220>

<221> misc_feature

<222> (141)..(141)

<223> n can be any nucleotide

<400> 149
gcattgcggt gcctatccaa agatcctcgg tttagatcaa gcatgagtga cattgttaaa 60
gaactagagc aactttatca acaatctaaa gatgcaggta atactcgcag ccacggtaac 120
aaccggccta gaccacgtag ncgaagtgtt ggtgatgttg gtaataaaca tacttcagtt 180
gcttatccaa gaccgtctgc ttctcccctt tatgctaaat aattcaataa atgatatgat 240
gccttttcat gttttgcctt tatgtttttc aagctgaaga acctgcacat ttgcagaatc 300
agctgattgt acagttgttt tggttaatgt attggatgtg tttgtaacct tga 353

<210> 150
<211> 351
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-2-1 ; homology with chitinase class 4

<220>

<221> misc_feature

<222> (31)..(349)

<223> n can be any nucleotide

<400> 150

gtaatataat	cgtatattct	ttttaaaata	naatcatgta	tagtggagtc	tnatgcaatt	60
ctcanaacat	atatatgtcg	ncctcactac	cgggggagca	actaatantg	aatatctnng	120
gttatncttt	gattcaactn	ctgggnatna	cttacgtcct	aacatgt nag	attatcccca	180
gtctccagac	ccagtngttg	acganactcg	gtataatact	cagcccttcn	ggcaacagtc	240
tgaagggtga	ntccgncac	atncnatctg	gccattaatg	gctcaaattg	ttgggccaag	300
accttgggna	naagntgatg	aaagaatggg	ngnttggtnc	gnncgatanc	a	351

<210> 151

<211> 352

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t12-2-18

<220>

<221> misc_feature

<222> (30)..(347)

<223> n can be any nucleotide

<400> 151

gaatagttga	acttattttt	caaattggcan	aaatggactg	acttaacttc	tgtacatnag	60
ctataaagat	gataatcaga	gtgcctnctg	catntcatcc	tcttcttgga	antgcaagaa	120
ctggaagccc	ttcattgatg	tggagtgtaa	acgtggtnct	ataagttant	tctttcgtgt	180
cgtctgatag	tttgaacctg	anganatgaa	gaagagctan	tggnaagat	ctncatgngt	240
caataaanga	gatcttngcc	taaacanatt	cgnggacnag	cgtgaaatgn	tagggaatgt	300
gaatggtaac	gctggntcgg	aagaagancc	ntccngnca	agncaanctt	tc	352

<210> 152

<211> 424

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t18-2-5 ; homology with basic PRB-1b [I]

<400> 152

gttcgatgca	acaatgggtg	gtattttata	acatgcaatt	atgatccacc	tggttaattgg	60
agaggacaac	gtcctacggt	gatcttgaag	agcaacatcc	ctttgattcc	aagttggaac	120
ttccaactga	tgtctagtaa	taacggttta	cgtgatcaaa	taatgaataa	aagctttgtc	180
atgtgttaag	gaaaattaaa	taaaataccag	tactatgcta	tgtgatgtta	tcttcttacc	240
cagtggataa	taatccaatg	gtgtagcaag	gggtggattt	actgttatct	acttgtttta	300
catttgtttt	tggtggtatt	atggaggtgt	gtatatgtat	gtgttttgat	gaataaacia	360
agtgaacaag	gtgatgagtc	aacagcgatg	taaatttggt	ctttgattaa	tataattact	420
tact						424

<210> 153
<211> 277
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-2

<220>

<221> misc_feature

<222> (40)..(265)

<223> n can be any nucleotide

<400> 153
ttcaaagttt tcgttgccct accaaccacc ggtggatgtn gtcctccng cccacaagtn 60
aacctgatat ctinttgttt tcctntagta ctagaaaaat ataangtagt attagttitn 120
cattctttca atgtgtgcag ttacatccct atcttttggg aggatacatc atcctcgnca 180
tcattggact tgaagtacca ccttaatcng taaccacaat ttttnaactt taaataatat 240
caaatttata atgacaaata tgttncttct ccacttc 277

<210> 154
<211> 366
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-6 ; homology with chloroplast RNA
binding protein

<220>

<221> misc_feature

<222> (43)..(43)

<223> n can be any nucleotide

<400> 154
gtactatatg atggtgagac tgggagatct cgtggctatg gtntttgtga gctatgagaa 60
tagagaacaa ttggagaatg cccttcaaaa tcttaatgga gtggaactgg atggaagggc 120
aatgcgcatc agcttagcac aagggaagaa acaataagat ggacaagatt ctgttatatt 180
agttgtaaaa gttgaaaatt taccatcaat agaagaacaa tgttttattc atggattaag 240
atggctaaag gcttttaact aggacaaagg gagatgtacc atttgaatta catcttccat 300
aggttgagct ttctatcttt gtttctttac tgcctttcat aatttagaga tatcattggt 360
cctttc 366

<210> 155
<211> 282
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-4-18 ; homology with AGP-b (ADP-G
pyrophosphorylase, small sub.)

<220>

<221> misc_feature

<222> (47)..(265)

<223> n can be any nucleotide

<400> 155

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gtaatcaccg gtttttattt taaacgaata attttttacag tacctantct nctcttgtag 60
gggtaatgag aantatctag ctacataaaa gtnggatgtg cgctanattt ctacaggnaa 120
agcaaaatna aagtagaana tttctaccgc atggctgttn acccaagatt tgggaggaca 180
accaagtncc aangcctncc ttcanatgat aatgccactg ggaatcaatg ngtccttgat 240
nacngtgana atcccncctc agannaagta tccatctgtt tc 282
```

<210> 156

<211> 376

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-1-1 ; homology with ubiquitin
conjugating enzyme

<400> 156

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accagaaatt gctcacatgt acaagaccga cagggtccaaa tacgagacca ctgctcgtag 60
ctggactcag aaatatgcta tgggataatg gcaaaggcgt caccaggcat gtctgagact 120
ttgtaacagc aatgtcttat tgtgctggtg gtgaatgaat aaattcggcg aaagaactta 180
gtttacttct taatctccct taaagtgggt tgtcaagaga catgtctttt caatttgtag 240
atatctattt gatgactatt agtaagggag aaacttcatg taattttact ttgtttgcca 300
gtttacctga gcctttctct agtttttcca atttgccctg cttgttttgt tctgcgttca 360
aagttggtat tgattc 376
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<210> 157

<211> 364

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-1-3 ; chloroplast genome [I] homology

<220>

<221> misc_feature

<222> (3)..(257)

<223> n can be any nucleotide

<400> 157

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ggnnnncaat ngnnatcgna cnagnnnncn gnannannan tccaaagctn tcnaatnttc 60
tccattactt gtgtggataa gcccnataatn atagagtata taacttcgat catagggatc 120
aatttctagt cgcatagctt cataataatt ctgcaaagct tccgcgctaa tttccttcgg 180
atctgagccg acatcccatc tctgtaatag gtaaatgcct ctttttctcc tgaagttgtc 240
ggaattactc gtaatangat attggctaca attgaaaagg tcttatcaat aaaatttcca 300
tttatccgtg atctaggcat aggtagcaat ccattctaga attcttctca ttacctctca 360
tggg 364
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<210> 158

<211> 184

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-6-3

<400> 158

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gagatcagta tacatgaaat ggtatatacg aggacatagt ttccttttagg gaaatgtcaa 60
taggttagag aagaatgggt aaaccgccgg cccgacgggt taattagggt attatataat 120
taggtttatc ttttgacttg tatgttatta gctagtaata atatacttat tcaattttgt 180
gccc 184
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<210> 159

<211> 534

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-1-12 ; homology with SNF-1like kinase,
calcineurin B-like calcium sensors interacting
protein in Arabidopsis

<400> 159

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ccagattaag cttcaggggg agaagaccgg gcgcaaagggt catttatccg ttgcaaccga 60
gatttacgag gtggcacctt cactatacat gggttgcttcg caaggctgga ggagatacct 120
tggaatttca caagttttac aagaacctgt ctaccggatt gaaagacatt gtttggcaac 180
tgggggaagg aggagaggaa gtaaaagatg gtcttgctcg agcttgattt tggagtgtga 240
agtcagtggg ttgccaatgt gaataactct gcaaacagtg tgctagatat tagataatgc 300
tgtgctgtaa aaagaacttt ttataatcag ttgatgtcaa acagagtgtt taagcatcaa 360
cgagtttata atacattggt ttatgtacga ttaaggcacg taaacttaga aaaattaaga 420
ctggttttac attgccattg ttgtcttatt tgggtgacaag atattacgga tcaatacccc 480
ccccaaaata tgtgctttta ttgaactgga agtggttaaca aagtgtgtta tata 534
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<210> 160

<211> 398

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-2-4 ; homology with a multi-functional
protein -beta oxidation

<220>

<221> misc_feature

<222> (36)..(354)

<223> n can be any nucleotide

<400> 160

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cctcagaaac gcaatggagg tgtcatgttt tggggntgat acaattggat ctgaatacat 60
atactcaaag ctaaaaactt ggcattgagg ctatgggtgat ttttataagc catcaacatt 120
tttgagcag agagctgcaa aaggattgcc cttgggagga tcgtgttgag ctgcataatca 180
tatgatcata tccttgacga agaagcagta attcaagcat gctgaacttg tgntcggaaa 240
taaggcggnn aagtttgtaa attacaatta gttagnagtt ccattaatta taataatttc 300
ctattttttc ccctcaagtt atttgatggg agttgtaact ttggctctac aaantagtgt 360
aatcgtccga gaaagagaat gaaatgtcca aacgcttc 398
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<210> 161

<211> 398

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-4-7 ; homology with GST (bronze-2 protein homologue)

<400> 161
atgggggttg tagatatcat gatcattatt acactagggg catacaaagc acaagagcta 60
gtgttttggt tgaaaatatt ggatgcagag aagacacccc tcttatactc atgggttgact 120
agtttaattg agctgcctat agttaaggaa atcactcccc cttatgacaa ggtgctttca 180
tttcttcata ttctcaaaga catcgtcttc aaagctccgg ccaattgacc ttttttgtgt 240
ttatgtccat ctctgtctct tttgtctact ccactcatta attgtactca atgtcttctc 300
ctctgtattg tataatataa taaggcttat ggccatttgg attccaaagg ctacttatat 360
tttgagtgtg tgttttatac aacagaaagt tatcatcc 398

<210> 162
<211> 397
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-4-8

<220>

<221> misc_feature

<222> (207)..(351)

<223> n can be any nucleotide

<400> 162
ccatgagaat gacgaaagca aggcagaaaa gaaaggagaa catgataaga agaatttgat 60
gaagaagggt gctgggaaaa tagggaaaaa attattgcat agtcatacta agaagcagca 120
tgaggaaggc tatgaaggag aagaggagga agaaggagaa gaaggagaag aagtagaagg 180
agaagaagta gaagtagaag aagcggnaga aggtggtttt gaatttgaac tcnactttga 240
tttttgatta agctttatgt atcactccag ctgtgtacgt tggatattct ccttattggt 300
ttaaaaanac ataagtatgt ttcgaggata tctctgaata ggtggcttgg natttgtaac 360
ctgtggtacc atatatatga gcgtcttcta gtttttt 397

<210> 163
<211> 304
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-5-4

<400> 163
acgaatgtgt ttagtactcg gggcaactcc aagtcttgag atccaagtgt tgcagcctct 60
ttagccttta aaagggtggat gctgccattt taacctgggt ttagtttgga tgaaatttga 120
attcaaagct tttgtttgta gcttaggttc ctgtattagt tttcagttga aatagttgtg 180
tactctttca tctttgagca atgaaataaa agtcctcaaa tctgcttctt ttagaactaa 240
aaaagatctc ttataatttc ccctgtaaaa tcttgcaatt gattatcaac cgtcctctct 300
tatt 304

<210> 164
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-5-5 ; Arabidopsis genomic homology

<400> 164
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ttgaccggta aagggtcttct caaaggaaca ggggttcttg atttcattta ctcagtttca 120
gatgctttca aataaaacca ttccgctata tacttactcc ccctccctct ttttcccctt 180
ttcctatatt tctgacaaat ttgcatttgt ttaaataaac aaaaacaaag aatgttgatc 240
tttttatatg ttgtccaatt atatggatta gtgaattata gaccattgaa ttccagctga 300
agaatgt 307

<210> 165
<211> 192
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-6-4

<400> 165
aacaataatt ggctataaca ttcaaaaata tttgaaacaa gcgatgccgt tacgtagagg 60
ttttacggta aaagtagaag ctggtataag ccatcaatgg aaaaactgga taattcgatc 120
ttatataaat ttcctaattg attgagacta atatatacag tcggatttta aggttttggc 180
cgaccggatt ac 192

<210> 166
<211> 232
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a1-1-17

<220>

<221> misc_feature

<222> (71)..(176)

<223> n can be any nucleotide

<400> 166
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tggtgtttat nggtgtctcc cttttgtatt tgaagttttc ccagaaaatt agcaaagaat 120
aagcttcaaa ctggttttac attttnggtt caaaatgtca natcaanaa tctgtnatgc 180
tattggtgtt gtatgtaata attagatccc attttcttcc tctttccttt at 232

<210> 167
<211> 489
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-1-14

<400> 167
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ttcattactt gtaagatctg ctaataatca ctatgttttt ctgcagtggg ggtgtcatgt 120
tttgggctga tacaattgga tctgaatata tataactcaa gctaaaaact tggcatgagg 180
cctatgggtga tttctataag ccatcaacat ttttggagca gagagctgca aaaggattgc 240
ccttggggagg atcgtgttga gctgcataatc atatgatcat atccttgcag aagaagcagt 300
aattcaagca tgctgaactt gtgctcggaa ataaggcggg aaagtgtgtt aattacaatt 360
agttagaagt tccattaatt ataataattt cctatttttt cccctcaagt tatttgatgg 420
tagttgtaac tttggctcta caaactagtg taatcgtccg agaaagagaa tgaaatgtcc 480

aaacgcttc

489

<210> 168
 <211> 877
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <221> CDS
 <222> (31)..(588)

<400> 168

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aacttcctct cttaaagttc atttactttg atg gag aat tat caa cat att ctt 54
                               Met Glu Asn Tyr Gln His Ile Leu
                               1                               5

cca aat tac tct tct tca tcg tct gat cag ttg tca gta atg aat atg 102
Pro Asn Tyr Ser Ser Ser Ser Ser Asp Gln Leu Ser Val Met Asn Met
      10                               15                               20

atg aac aac aat tct caa gca aaa aca act gaa tta acc caa gac aat 150
Met Asn Asn Asn Ser Gln Ala Lys Thr Thr Glu Leu Thr Gln Asp Asn
      25                               30                               35                               40

aag aaa tcg agc ggg ttt ttg ggg cta atg gca agc atg gaa gct cct 198
Lys Lys Ser Ser Gly Phe Leu Gly Leu Met Ala Ser Met Glu Ala Pro
                               45                               50                               55

agc tcc agt gtt gtt act gat cac cca aat agc att ccg tat aac cct 246
Ser Ser Ser Val Val Thr Asp His Pro Asn Ser Ile Pro Tyr Asn Pro
                               60                               65                               70

aat gat cag aac gag gtg aga tcg ggt aag aag aat aaa gtt gag aag 294
Asn Asp Gln Asn Glu Val Arg Ser Gly Lys Lys Asn Lys Val Glu Lys
      75                               80                               85

aag att aaa aaa ccg aga tat gct ttt caa aca agg agt caa gtg gat 342
Lys Ile Lys Lys Pro Arg Tyr Ala Phe Gln Thr Arg Ser Gln Val Asp
      90                               95                               100

att ttg gat gat ggt tat aga tgg agg aaa tac gga cag aag gct gtc 390
Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Ala Val
      105                               110                               115                               120

aag aac aac aga ttc cca aga agc tac tac cga tgc acg cat caa gga 438
Lys Asn Asn Arg Phe Pro Arg Ser Tyr Tyr Arg Cys Thr His Gln Gly
      125                               130                               135

tgt aac gtg aag aaa caa gta caa agg ctg tca aag gat gaa gga gta 486
Cys Asn Val Lys Lys Gln Val Gln Arg Leu Ser Lys Asp Glu Gly Val
      140                               145                               150

gta gta act act tat gaa ggc atg cat tca cat ccc att gag aag tcc 534
Val Val Thr Thr Tyr Glu Gly Met His Ser His Pro Ile Glu Lys Ser
      155                               160                               165

aca gat aac ttt gag cac att ttg act cag atg caa atc tat gct tcc 582
Thr Asp Asn Phe Glu His Ile Leu Thr Gln Met Gln Ile Tyr Ala Ser
      170                               175                               180

ttt tga aacgtccatc acttcaatgc ctaaggcatg acactcaatt agtcacttgt 638
Phe
185

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aaaatagtagtac tacagtatat tgtgtacatg cgttttgaac ctagatgcta tatttttgaaa 698
 taaaacgcaa cttcattagg gaatttaatt tgatcattgt acaactaaaa gtaatgttgc 758
 tattttttttg tttttatcac tttgtttttg ccggagccat gctcttcatt ttaactcttt 818
 tcttttagaa ttaacaaata atttcatgtt ggagaaagat acgtgccaaa aaaaaaaaaa 877

<210> 169
 <211> 185
 <212> PRT
 <213> Nicotiana tabacum

<400> 169
 Met Glu Asn Tyr Gln His Ile Leu Pro Asn Tyr Ser Ser Ser Ser Ser
 1 5 10 15
 Asp Gln Leu Ser Val Met Asn Met Met Asn Asn Asn Ser Gln Ala Lys
 20 25 30
 Thr Thr Glu Leu Thr Gln Asp Asn Lys Lys Ser Ser Gly Phe Leu Gly
 35 40 45
 Leu Met Ala Ser Met Glu Ala Pro Ser Ser Ser Val Val Thr Asp His
 50 55 60
 Pro Asn Ser Ile Pro Tyr Asn Pro Asn Asp Gln Asn Glu Val Arg Ser
 65 70 75 80
 Gly Lys Lys Asn Lys Val Glu Lys Lys Ile Lys Lys Pro Arg Tyr Ala
 85 90 95
 Phe Gln Thr Arg Ser Gln Val Asp Ile Leu Asp Asp Gly Tyr Arg Trp
 100 105 110
 Arg Lys Tyr Gly Gln Lys Ala Val Lys Asn Asn Arg Phe Pro Arg Ser
 115 120 125
 Tyr Tyr Arg Cys Thr His Gln Gly Cys Asn Val Lys Lys Gln Val Gln
 130 135 140
 Arg Leu Ser Lys Asp Glu Gly Val Val Val Thr Thr Tyr Glu Gly Met
 145 150 155 160
 His Ser His Pro Ile Glu Lys Ser Thr Asp Asn Phe Glu His Ile Leu
 165 170 175
 Thr Gln Met Gln Ile Tyr Ala Ser Phe
 180 185

<210> 170
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: primer EVVRA
 26

<400> 170
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21

<210> 171
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: primer EVVRA
 28

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<400> 171
ctcagatcta gaagttcatt tactttgatg 30

<210> 172
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
29

<400> 172
attgaagatc tagacgtttc aactcgaggc 30

<210> 173
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
30

<400> 173
ccctcgagcc accgtactcg tcaat 25

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